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BUREAU OF APPLIED ECONOMICS, INC.

WASHINGTON

# WAGES IN VARIOUS INDUSTRIES.

A SUMMARY OF WAGE MOVEMENTS  
DURING THE WAR.

WASHINGTON

1919

**BUREAU OF APPLIED ECONOMICS, Inc.**  
**WASHINGTON.**

**HUGH S. HANNA, Director**  
**W. JETT LAUCK, Chairman Advisory Board**  
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BUREAU OF APPLIED ECONOMICS, Inc.  
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## PREFACE.

This bulletin attempts to bring together all the available information regarding wages and earnings during the course of the war, that is to say, from 1914 to 1919. Wage data of this character are obtainable for only certain industries and, in some cases, in only fragmentary form. The industries here covered are by no means all the important industries in the country, but taken together they represent several million employees in a wide variety of work, and the wage data shown may thus be regarded as fully representative of conditions among American wage earners.

The effort has been to include in the bulletin only material from sources which may be regarded as authoritative. Even then, it is recognized that a considerable part of the material is subject to some inaccuracy. It is believed, however, that the inaccuracies are not sufficient to influence the broader wage movements developed by the data presented.

The publications of the United States Bureau of Labor Statistics, particularly the monthly Labor Review of that Bureau, are the most important sources of wage information, and these have been drawn on fully. Other Government departments have also furnished valuable information. The officials of various international labor unions have been extremely helpful in supplying information on request.

Most of the detailed and laborious work of locating and summarizing material has been done by Mr. Leifur Magnusson, assisted by Mr. D. W. Alexander, Mr. Ernest Kletsch, and Mr. Raymond Kenny.





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## **PART I.**

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# WAGES IN VARIOUS INDUSTRIES.

## CHAPTER 1. ARMY PAY TABLE.

The table below is a statement of basic pay in the first enlistment of the grade and occupation named compiled from the Army Pay Table. It does not include slight additions for continuous years of service in the 2nd, 3rd, etc., enlistments. As the first enlistment period is from two to four years and as not over 25 per cent of the enlisted men continue in service it is a fair statement of possible earnings in the Army. In addition the Army man gets clothing and board and lodging—or its commutation. The pay fixed by the act of May 18, 1917, continues for the period of the war emergency, and is therefore still in effect.

### MONTHLY PAY OF ENLISTED MEN IN THE AMERICAN ARMY.

Title or Rank.	1908-1917	1917-1919	Per cent increase
Master electricians.....	\$75.00	\$81.00	8.0
Master signal electricians.....	75.00	81.00	8.0
Engineers.....	65.00	71.00	9.2
Sergeant, 1st class, Hospital Corps.....	50.00	56.00	12.0
Regimental Sergeant Major.....	45.00	51.00	13.3
Regimental Q. M. Sergeant.....	45.00	51.00	13.3
Regimental Commissary Sergeants.....	45.00	51.00	13.3
Sergeants Major, Senior Grade Coast Artillery.....	45.00	51.00	13.3
Battalion Sergeants-Major of Engineers.....	45.00	51.00	13.3
Post Quartermaster Sergeants.....	45.00	51.00	13.3
Post Commissary Sergeants.....	45.00	51.00	13.3
Post Ordnance Sergeants.....	45.00	51.00	13.3
Battalion Q. M. Sergeants of Engineers.....	45.00	51.00	13.3
Electrician-Sergeants, 1st class, Signal Corps.....	45.00	51.00	13.3
First Sergeants.....	45.00	51.00	13.3
Battalion Sergeant-Major Infantry and Field Artillery.....	40.00	48.00	20.0
Squadron, Sergeant Major.....	40.00	48.00	20.0
Sergeants-Major, junior grade, Coast Artillery.....	40.00	48.00	20.0
Battalion Quartermaster Sergeant, Field Artillery.....	40.00	48.00	20.0
Master Gunners.....	40.00	48.00	20.0
Electrician Sergeants, 2nd class.....	36.00	44.00	22.2
Sergeants of Engineers, Ordnance and Signal Corps.....	36.00	44.00	22.2
Q. M. Sergeant of Engineers.....	36.00	44.00	22.2
Mess Sergeant.....	36.00	44.00	22.2
Color Sergeants.....	36.00	44.00	22.2
Sergeant and Q. M. Sergeant of Cavalry, Artillery and Infantry.....	30.00	38.00	26.7
Stable Sergeants.....	30.00	38.00	26.7
Acting Cooks of Hospital Corps.....	30.00	38.00	26.7
Firemen.....	30.00	38.00	26.7
Cooks.....	30.00	38.00	26.7
Corporals of Engineers.....	24.00	36.00	50.0
Corporals of Ordnance.....	24.00	36.00	50.0
Corporals of Signal Corps.....	24.00	36.00	50.0
Corporals of Hospital Corps.....	24.00	36.00	50.0
Chief Mechanics.....	24.00	36.00	50.0
Mechanics, Coast Artillery.....	24.00	36.00	50.0
Corporals of Cavalry.....	21.00	36.00	71.4
Corporals of Artillery.....	21.00	36.00	71.4
Corporals of Infantry.....	21.00	36.00	71.4
Mechanics of Field Artillery.....	21.00	36.00	71.4
Blacksmiths and Farriers.....	21.00	36.00	71.4
Saddlers.....	21.00	36.00	71.4
Wagoners.....	21.00	36.00	71.4
Artificers.....	21.00	36.00	71.4
Private, 1st class, Engineers, Ordnance, Signal Corps and Hospital Corps.....	18.00	33.00	83.3
Privates, Hospital Corps.....	16.00	31.00	93.8
Trumpeters.....	15.00	30.00	100.0
Musicians of Infantry, Artillery and Engineers.....	15.00	30.00	100.0
Privates of Cavalry, Engineers, Artillery, Infantry, Signal Corps.....	15.00	30.00	100.0
Privates, 2nd class, Engineers, Ordnance.....	15.00	30.00	100.0

## CHAPTER 2.

## ARSENALS, UNITED STATES GOVERNMENT.

The following statement summarized from the Monthly Labor Review of the United States Bureau of Labor Statistics for October 1919 is a tabulation of the basic day rates of payment for the principal occupations in the arsenals of the War Department for 1914 and 1919. In the case of piece workers, the rates shown are the minimum guaranteed rates per day. There are maximum and minimum ranges, as shown, within which compensation is according to degree of skill. The minimum is not an entrance rate necessarily; the rate at which a man is hired is based rather on skill and experience. The rates by no means reflect actual earnings, least of all during the war period when bonuses were paid and a great deal of overtime was worked. The value of the rates is principally to reflect basic wage movements in the Federal arsenals; in that respect they have the same value as union wage scales.

The basic eight-hour day is in existence in all the arsenals.

# WAGES IN VARIOUS INDUSTRIES.

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## MAXIMUM BASIC DAILY RATES OF PAY IN UNITED STATES ARSENALS 1914 and 1919.

(Compiled from Monthly Labor Review of U. S. Bureau of Labor Statistics, October, 1919.)

Occupation.	Frankford.			Watervliet.		
	1914	1919	Per cent increase.	1914	1919	Per cent increase.
Blacksmith.....	3.52	6.40	81.8	3.28	6.88	109.8
Boilermaker.....						
Carpenter.....	3.20	5.92	85.0	3.20	5.92	85.0
Die sinker.....	4.48	6.88	53.6			
Electrician.....	3.00	5.92	97.3	3.52	6.40	81.8
Laborer.....	1.76	3.68	109.1	2.00	3.68	84.0
Millwright.....	3.00	5.92	97.3		5.92	
Moulder.....		6.40				
Machinist.....	3.00	6.40	113.3	4.00	6.40	60.0
Machinist's helper.....	2.24	4.72	110.7	2.00	4.32	116.0
Machine operator.....	1.76			2.24	5.36	139.3
Painter.....	2.60	5.36	106.2		5.35	
Patternmaker.....	3.44	6.40	56.0	3.20	6.40	100.0
Plumber.....	3.00	5.92	57.3	3.28	6.40	95.1
Steamfitter.....	2.52			3.28	6.40	95.1
Sheet metal worker.....	3.20	5.92	85.0			
Tinsmith.....	3.20	5.92	85.0	3.04	6.40	110.5
Toolmaker.....	4.48	6.88	53.6	4.00	6.88	72.0
Gaugemaker.....	4.48	6.88	53.6			

Occupation.	Watertown.			Rock Island.		
	1914	1919	Per cent increase.	1914	1919	Per cent increase.
Blacksmith.....	3.52	7.68	118.2	3.75	6.24	66.4
Boilermaker.....				4.00	5.92	48.0
Carpenter.....	3.28	5.92	80.5	3.25	5.44	67.4
Die sinker.....				3.75	6.88	83.5
Electrician.....	3.52	6.40	81.8	3.25	5.92	82.2
Laborer.....	2.24	3.68	64.3	1.85	3.68	98.9
Millwright.....		5.92		2.75	5.04	83.3
Moulder.....	3.68	6.40	73.9	3.25	5.92	82.2
Machinist.....	3.76	6.40	70.1	3.75	6.40	70.7
Machinist's helper.....	2.80	4.32	54.3	2.25	4.56	102.7
Machine operator.....	2.56	5.36	109.4	2.25	5.04	124.0
Painter.....	2.88	5.36	86.1	3.00	5.60	86.7
Patternmaker.....	4.00	6.88	72.0	3.75	5.92	57.9
Plumber.....	3.28	6.40	95.1	3.50	6.00	71.5
Steamfitter.....	4.50	6.40	42.2	3.00	6.00	100.0
Sheet metal worker.....				3.00	5.92	97.3
Tinsmith.....		4.96		3.00	5.92	97.3
Toolmaker.....	3.68	6.88	87.0	4.25	6.88	61.9
Gaugemaker.....				4.25	6.88	61.9

Occupation.	Springfield.			Average of the five arsenals combined.		
	1914	1919	Per cent increase.	1914	1919	Per cent increase.
Blacksmith.....	3.50	5.70	62.9	3.51	6.58	87.5
Boilermaker.....				4.00	5.92	48.0
Carpenter.....	3.75	5.20	38.7	3.34	5.68	70.1
Die sinker.....	4.75	6.40	34.7	4.33	6.72	55.2
Electrician.....	3.00	5.76	92.0	3.26	6.08	86.5
Laborer.....	2.00	3.68	84.0	1.97	3.68	86.8
Millwright.....	3.50	5.36	53.1	3.08	5.63	82.8
Moulder.....				3.47	6.24	79.8
Machinist.....	3.75	5.92	57.9	3.65	6.30	72.6
Machinist's helper.....				2.32	5.48	136.2
Machine operator.....	2.60	5.20	100.0	2.28	5.24	129.8
Painter.....	3.50	4.80	37.1	2.99	6.30	110.7
Patternmaker.....				3.60	6.40	77.7
Plumber.....	4.00	5.20	30.0	3.41	5.98	75.4
Steamfitter.....	3.75	5.20	38.7	3.41	6.00	76.0
Sheet metal worker.....				3.10	5.92	91.0
Tinsmith.....	3.50	5.20	48.6	3.19	5.66	77.4
Toolmaker.....	4.25	6.40	50.6	4.13	6.78	64.2
Gaugemaker.....	4.25	6.40	50.6	4.33	6.72	55.2

## CHAPTER 3.

## BUILDING TRADES OF VARIOUS CITIES.

Information regarding the trend of union wage rates in the building trades was obtained for three large groups of workers: (1) Union wages for various trades for most of the larger cities of the country, as compile by the United States Bureau of Labor Statistics and supplemented by data furnished by union officials; (2) Wage rates of building laborers under the scales of the Hod Carriers' and Building Laborers' Union; and (3) Prevailing wages in the building trades of New York as published by the Building Trades Council of that city.

A brief analysis of the wage movements in each of these three groups is presented in this and the two following chapters. In considering these data it is important to bear in mind just what the union scale is. In brief, the union scale is a statement, either written or definitely understood, of wages and hours of labor agreed to or accepted by an organization of union men and an employer or group of employers, under which agreement union men are actually working. The union scale usually fixes the limit in only one direction. It sets a minimum wage and a maximum of hours for a regular day's work. This compilation shows such minimum wage and maximum hours as are established by the agreed scale. In certain cities, some workmen, and at the present time probably a considerable number, actually are paid more than the scale, and in some instances employees work less than the scale hours. In general, however, the union scale represents the prevailing scale for efficient labor.

## SKILLED BUILDING TRADES IN LARGE CITIES.

The series of tables following show the prevailing union wage rates and regular weekly hours in 1914 and in 1919 for certain of the more important trades for which information was obtainable. In general the data for 1914 were taken from Bulletin 171 of the United States Bureau of Labor Statistics and the data for 1919 were supplied by the international headquarters of the union concerned and give the rates prevailing in or about September of this year.

A total of at least 30 cities are covered for most of the trades, altho it has not always been possible to obtain information for all trades in each of these cities.

The first table gives the averages, by trades, for all cities combined. The succeeding tables give the detailed data by trades and cities.



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## SUMMARY OF UNION RATES OF PAY AND HOURS OF WORK IN VARIOUS CITIES, 1914 and 1919.

Occupation.	Cents per hour.					Hours per week.			
	No. of cities.	1914	No. of cities.	1919	Per cent increase.	No. of cities.	1914	No. of cities.	1919
Bricklayers.....	39	68.2	39	89.3	30.9	39	45.2	39	44.2
Carpenters.....	38	50.8	37	78.2	53.9	38	45.6	37	44.2
Cement workers and finishers.....	18	59.3	14	80.8	36.3	18	47.1	14	44.9
Inside wiremen.....	35	52.8	27	79.9	51.4	35	45.6	27	44.3
Painters.....	37	47.4	36	76.2	60.8	36	44.6	37	42.8
Plasterers.....	35	67.7	33	89.5	32.2	35	44.6	34	43.6
Plumbers.....	34	61.6	34	92.4	50.0	34	45.4	34	44.0
Sheet metal workers.....	32	51.8	29	80.9	56.2	30	43.3	28	44.0
Steam fitters.....	33	61.2	33	92.8	51.6	33	44.4	33	44.0
Structural iron workers...	32	62.1	32	94.2	51.7	32	44.5	31	44.0

### BRICKLAYERS

	Hourly Rate in Cents		Per cent Increase	Hours per Week	
	1914	1919		1914	1919
Boston.....	65.0	90.0	38.46	44	44
Buffalo.....	65.0	90.0	38.46	48	44
Fall River.....	60.0	85.0	41.67	48	44
Manchester.....	60.0	90.0	50.00	44	44
Newark.....	65.0	80.0	23.07	44	44
New Haven.....	60.0	82.5	37.50	44	44
New York.....	75.0	87.5	16.67	44	44
Philadelphia.....	65.0	100.0	53.85	44	44
Pittsburgh.....	70.0	100.0	42.86	44	44
Providence.....	65.0	90.0	38.46	44	44
Scranton.....	60.0	75.0	25.00	44	44
Atlanta.....	45.0	100.0	122.22	53	44
Baltimore.....	62.5	100.0	60.00	45	45
Charleston.....	40.0	95.0	137.50	53	44
Jacksonville.....	62.5	75.0	20.00	48	45
Richmond.....	65.0	100.0	53.85	45	45
Washington.....	66.7	100.0	49.93	45	44
Chicago.....	75.0	100.0	33.33	44	44
Cincinnati.....	65.0	90.0	38.46	45	45
Cleveland.....	70.0	100.0	42.86	44	44
Detroit.....	65.0	100.0	53.85	48	44
Indianapolis.....	75.0	90.0	20.00	44	44
Kansas City.....	75.0	100.0	33.33	44	44
Milwaukee.....	67.5	90.0	33.33	44	44
Minneapolis.....	70.0	87.5	25.00	48	44
Omaha.....	70.0	100.0	42.86	44	44
St. Louis.....	75.0	100.0	33.33	44	44
Birmingham.....	70.0	87.5	25.00	44	44
Dallas.....	87.5	112.5	28.57	44	48
Little Rock.....	75.0	100.0	33.33	44	44
Louisville.....	65.0	75.0	15.38	48	44
Memphis.....	75.0	87.5	16.67	44	44
New Orleans.....	62.5	75.0	20.00	44	44
Denver.....	75.0	100.0	33.33	44	44
Los Angeles.....	75.0	100.0	33.33	44	44
Portland.....	75.0	112.5	50.00	44	44
Salt Lake City.....	80.0	100.0	25.00	44	44
San Francisco.....	87.5	112.5	28.57	44	44
Seattle.....	75.0	112.5	50.00	44	44
Average.....	68.2	89.3	30.94	45.2	44.2
Cities.....	39	39		39	39

<sup>1</sup> From information supplied by Mass. Bureau of Labor Statistics.

<sup>2</sup> 44 hours and \$27.50 per week Nov. to March inc.

<sup>3</sup> Work 53 hours, paid for 54.

<sup>4</sup> 44½ hours per week, Oct. to April.

<sup>5</sup> 44 hours per week Oct. to April inc.

## WAGES IN VARIOUS INDUSTRIES.

## CARPENTERS.

	Hourly Rate in Cents.		Per cent Increase.	Hours per Week	
	1914	1919		1914	1919
Boston.....	55.0	100.0	81.82	44	40
Buffalo.....	50.0	70.0	40.00	48	44
Fall River.....	42.0	75.0	78.57	48	44
Manchester.....	40.0	70.0	75.00	48	44
Newark.....	50.0	80.0	60.00	44	44
New Haven.....	50.0	65.0	30.00	44	44
New York.....	62.5	78.0	24.80	44	44
Philadelphia.....	55.0	80.0	45.45	44	44
Pittsburgh.....	56.3	90.0	59.85	44	44
Providence.....	50.0	80.0	60.00	44	44
Scranton.....	47.5	70.0	47.37	48	44
Atlanta.....	40.0	60.0	50.00	50	44
Baltimore.....	43.8	80.0	82.65	44	44
Charleston.....	33.3	75.0	125.22	53	48
Jacksonville.....	37.5	65.0	73.33	48	48
Washington.....	50.0	87.5	75.00	44½	44
Chicago.....	65.0	100.0	53.85	44	44
Cincinnati.....	50.0	70.0	40.00	44½	44
Cleveland.....	55.0	85.0	54.54	44	44
Detroit.....	50.0	80.0	60.00	48	44
Indianapolis.....	50.0	75.0	50.00	44½	44
Kansas City.....	60.0	85.0	41.66	44	44
Milwaukee.....	50.0	70.0	40.00	44	44
Minneapolis.....	50.0	75.0	50.00	48	44
Omaha.....	50.0	75.0	50.00	44	44
St. Louis.....	62.5	82.5	32.00	44	44
Birmingham.....	45.0	65.0	44.44	48	44
Dallas.....	55.0	87.5	59.09	44	44
Little Rock.....	50.0	80.0	60.00	48	44
Louisville.....	45.0			44	
Memphis.....	50.0	75.0	50.00	44	44
New Orleans.....	40.0	60.0	50.00	48	48
Denver.....	60.0	87.5	45.83	44	44
Los Angeles.....	50.0	75.0	50.00	48	44
Portland.....	50.0	85.0	70.00	44	44
Salt Lake City.....	62.5	75.0	20.00	44	44
San Francisco.....	62.5	87.5	40.00	44	44
Seattle.....	56.3	94.0	66.96	44	44
Average.....	50.8	78.2	53.94	45.6	44.2
Cities.....	38	37		38	37

<sup>1</sup> Work 53 hours paid for 54.

## CEMENT WORKERS AND FINISHERS.

	Hourly Rate in Cents.		Per cent Increase.	Hours per Week	
	1914	1919		1914	1919
Boston.....	62.5	90.0	44.0	44	44
Newark.....	62.5			44	
New York.....	62.5	90.0	44.0	44	44
Philadelphia.....	47.5	72.5	52.6	48	44
Chicago.....	65.0	80.0	23.1	44	44
Cincinnati.....	50.0	60.0	20.0	50	50
Cleveland.....	55.0	80.0	45.5	48	44
Detroit.....	50.0	80.0	60.0	54	44
Indianapolis.....	55.0	70.0	27.3	50	50
Kansas City.....	65.0	87.5	34.6	44	44
Milwaukee.....	45.0	70.0	55.6	48	44
St. Louis.....	60.0	83.5	39.2	44	44
Little Rock.....	55.6			54	
Denver.....	68.8	87.5	27.2	44	44
Los Angeles.....	62.5			48	
Portland.....	62.5	80.0	28.0	48	44
San Francisco.....	75.0	100.0	33.3	44	44
Seattle.....	62.5			48	
Average.....	59.3	80.8	36.3	47.1	44.9
Cities.....	18	14		18	14



## INSIDE WIREMEN.

	Hourly Rate in Cents.		Per cent Increase.	Hours per Week	
	1914	1919		1914	1919
Boston.....	55.0	77.5	40.90	44	44
Buffalo.....	47.5	70.0	47.37	48	44
Fall River.....	37.5			48	
Manchester.....	34.8			48	
Newark.....	62.5	75.0	20.00	44	44
New York.....	60.0	75.0	25.00	44	44
Philadelphia.....	45.0	82.5	83.33	44	44
Pittsburgh.....	57.0	90.0	57.89	48	44
Providence.....	50.0			44	
Scranton.....	46.9	68.5	46.05	48	44
Baltimore.....	43.8	70.0	59.82	48	44
Jacksonville.....	45.0	85.0	88.88	45	44
Richmond.....	43.8			48	
Washington.....	60.0	100.0	66.66	44	44
Chicago.....	75.0	87.5	16.66	44	44
Cincinnati.....	50.0	68.8	37.60	44½	44
Cleveland.....	60.0	87.5	45.83	44	
Detroit.....	50.0	72.0	44.00	48	44
Indianapolis.....	50.0			48	44
Kansas City.....	62.5	75.0	20.00	48	44
Milwaukee.....	50.0	75.0	50.00	44	44
Minneapolis.....	50.0			44	
Omaha.....	50.0	87.5	75.00	44	44
St. Louis.....	70.0	87.5	25.00	44	44
Dallas.....	56.3			44	
Little Rock.....	50.0			48	
Louisville.....	40.0	60.0	50.00	48	48
Memphis.....	50.0	80.0	60.00	44	44
New Orleans.....	50.0	90.0	80.00	48	44
Denver.....	56.3	82.5	46.54	44	44
Los Angeles.....	50.0	72.5	45.00	48	48
Portland.....	56.3	87.5	55.42	44½	44
Salt Lake City.....	56.3	75.0	33.21	44	44
San Francisco.....	62.5	87.5	40.00	44	44
Seattle.....	62.5	87.5	40.00	44	44
Average.....	52.8	79.9	51.4	45.6	44.3
Cities.....	35	27		35	27

<sup>1</sup> 44 hours June to Sept. inc.

<sup>2</sup> 44 hours July to Sept. inc.

## PLASTERERS.

	Hourly Rate in Cents.		Per cent Increase.	Hours per Week	
	1914	1919		1914	1919
Boston.....	65.0	90.0	38.46	44	44½
Buffalo.....	60.0	85.0	41.66	44	40
Fall River.....	60.0	75.0	25.00	48	44
Manchester.....	50.0			44	44
Newark.....	65.0			44	1
New Haven.....	60.0	82.5	37.50	44	44
New York.....	68.8	100.0	45.35	44	44
Philadelphia.....	62.5	80.0	28.00	44	40
Pittsburgh.....	68.8	97.5	41.71	44	44
Scranton.....	55.0	80.0	45.45	44	44
Atlanta.....	45.0	67.4	49.78	53	48
Baltimore.....	62.5	87.5	40.00	44	44
Jacksonville.....	62.5	75.0	20.00	48	44
Washington.....	62.5	87.5	40.00	44	44
Chicago.....	75.0	87.5	16.66	44	44
Cincinnati.....	75.0	87.5	16.66	44½	44½
Cleveland.....	62.5	90.0	44.00	44	44
Detroit.....	68.8	100.0	45.35	44	44
Indianapolis.....	65.0	87.5	34.62	44½	44½
Kansas City.....	75.0	100.0	33.33	44	44
Milwaukee.....	65.0	87.5	34.61	44	44
Minneapolis.....	70.0	87.5	25.00	44	44
Omaha.....	75.0	87.5	16.66	44	44
St. Louis.....	75.0	100.0	33.33	44	44
Birmingham.....	62.5	75.0	20.00	44	44
Dallas.....	87.5	112.5	28.57	44	44
Louisville.....	65.0	87.5	34.62	44	44
Memphis.....	75.0	87.5	16.66	44	44
New Orleans.....	62.5	75.0	20.00	48	45
Denver.....	75.0	100.0	33.33	44	44
Los Angeles.....	75.0	87.5	16.66	44	44
Portland.....	75.0	80.0	6.66	44	44
Salt Lake City.....	75.0	100.0	33.33	44	44
San Francisco.....	87.5	112.5	28.57	44	40
Seattle.....	75.0	112.5	50.00	44	40
Average.....	67.7	89.5	32.2	44.6	43.6
Cities.....	35	33		35	34

\*No rate given.

## PAINTERS.

	Hourly Rate in Cents		Per cent Increase.	Hours per Week	
	1914	1919		1914	1919
Boston.....	55.0	90.0	63.64	44	40
Buffalo.....	46.9	62.5	33.26	48	44
Fall River.....	37.5	65.0	73.33	44	44
Newark.....	44.0	75.0	70.45	44	44
New Haven.....	40.9	62.5	52.81	44	44
New York.....	50.0	87.5	75.00	44	44
Philadelphia.....	42.5	80.0	88.23	44	44
Pittsburgh.....	56.3	87.5	55.42	44	44
Providence.....	45.5	70.0	53.85	48	44
Scranton.....	40.0	65.0	62.50	48	44
Atlanta.....	33.3	60.0	80.18	53 <sup>1</sup>	44
Baltimore.....	37.5	68.75	83.33	48	44
Charleston.....	25.0	65.0	160.00	48	44
Jacksonville.....	37.5	75.0	100.00	48	44
Richmond.....	30.6	60.0	96.08	54	44
Washington.....	50.0	90.0	80.00	44	44
Chicago.....	70.0	87.5	26.00	44	44
Cincinnati.....	50.0	75.0	50.00	44	44
Cleveland.....	50.0	85.0	70.00	44	44
Detroit.....	45.0	80.0	77.77	48	44
Indianapolis.....	50.0	70.0	40.00	44	44
Kansas City.....	60.0	87.5	45.83	44	44
Milwaukee.....	50.0	70.0	10.00	44	44
Minneapolis.....	50.0	70.0	40.00	44	44
Omaha.....	50.0	87.5	75.00	44	44
St. Louis.....	60.0	75.0	25.00	44	44
Birmingham.....	45.0			48	44
Dallas.....	50.0	87.5	75.00	44	44
Little Rock.....	50.0	80.0	60.00	48	44
Louisville.....	50.0	62.5	25.00	48	44
Memphis.....	52.5	75.0	42.86	44	44
New Orleans.....	40.0	50.0	25.00	48	44
Denver.....	50.0	80.0	60.00	44	44
Los Angeles.....	43.8	75.0	71.23	48	44
Portland.....	50.0	90.0	80.00	44	44
San Francisco.....	59.4	100.0	68.35	44	44
Seattle.....	56.3	90.0	59.86	44	40
Average.....	47.4	76.2	60.8	44.6	42.8
Cities.....	37	36		36	37

<sup>1</sup> Work 53 hours, paid for 54.

## PLUMBERS.

	Hourly Rate in Cents.		Per cent Increase.	Hours per Week	
	1914	1919		1914	1919
Boston.....	65.0	100.0	53.8	44	44
Buffalo.....	56.3	81.2	44.2	48	44
Fall River.....	43.8	81.2	85.4	48	44
Manchester.....	31.3	75.0	139.6	48	44
Newark.....	62.5	87.4	39.8	44	44
New York.....	68.8	87.4	27.0	44	44
Philadelphia.....	50.0	81.2	62.4	44	44
Pittsburgh.....	62.5	93.6	49.8	44	44
Providence.....	56.3	90.0	59.9	44	44
Scranton.....	53.1	75.0	41.2	48	44
Baltimore.....	50.0	100.0	100.0	48	44
Jacksonville.....	62.5	100.0	60.0	48	44
Richmond.....	50.0	81.2	62.4	48	44
Washington.....	56.3	100.0	77.6	48	44
Chicago.....	75.0	100.0	33.3	44	44
Cleveland.....	62.5	100.0	60.0	44	44
Detroit.....	56.3	87.4	55.2	48	44
Indianapolis.....	62.5	87.5	40.0	44	44
Kansas City.....	68.8	100.0	45.5	44	44
Milwaukee.....	62.5	81.2	29.9	44	44
Minneapolis.....	62.5	87.5	40.0	44	44
Omaha.....	68.3	100.0	46.4	44	44
St. Louis.....	75.0	100.0	33.3	44	44
Dallas.....	75.0	100.0	33.3	44	44
Little Rock.....	62.5	87.5	40.0	44	44
Louisville.....	60.0	90.0	50.0	44	44
Memphis.....	62.5	87.5	40.0	48	44
New Orleans.....	56.3	87.5	55.4	48	44
Denver.....	62.5	100.0	60.0	44	44
Los Angeles.....	56.3	100.0	77.6	48	44
Portland.....	75.0	100.0	33.3	44	44
Salt Lake City.....	75.0	100.0	33.3	44	44
San Francisco.....	75.0	112.4	49.9	44	44
Seattle.....	75.0	100.0	33.3	44	44
Average.....	61.6	92.4	50.0	45.4	44.0
Cities.....	34	34		34	34

## SHEET METAL WORKERS.

	Hourly Rate in Cents.		Per cent Increase.	Hours per Week	
	1914	1919		1914	1919
Boston <sup>1</sup> .....	55.0	90.0	63.64	44	44
Buffalo.....	50.0	70.0	40.00	48	44
Manchester.....	34.4	50.0	45.35	48	44
Newark.....	60.0	85.0	41.67	44	44
New Haven.....	47.7	75.0	57.23	44	44
New York.....	62.5	75.0	20.00	44	44
Philadelphia.....	50.0	75.0	50.00	44	44
Pittsburgh.....	55.0	90.0	63.64	44	44
Providence.....	48.0			44	
Seranton.....	46.9	75.0	59.91	48 <sup>2</sup>	44
Baltimore.....	40.0	80.0	100.0	48	44
Cincinnati.....	45.0			44	
Washington.....	50.0	75.0	50.00	44	44
Chicago.....	68.8	85.0	23.55	44	44
Cleveland.....	45.0	90.0	100.0	48	44
Detroit.....	50.0	80.0	60.00	48	44
Indianapolis.....	50.0	75.0	50.00	44	44
Kansas City.....	60.0	80.0	33.33	44	44
Milwaukee.....	45.0	67.0	48.89	48	44
Minneapolis.....	50.0	80.0	60.00	48	44
Omaha.....	42.5	75.0	76.47	44	44
St. Louis.....	60.0	80.0	33.33	44	44
Dallas.....	56.3	90.0	59.86	44	44
Little Rock.....	52.5			48	
Louisville.....	42.5	65.0	52.94	48	44
Memphis.....	50.0	80.0	60.00	48	44
New Orleans.....	40.0	82.5	106.25	48	
Denver.....	56.3	93.8	66.61	44	44
Los Angeles.....	56.3	81.3	44.41	44	44
Portland.....	56.3	100.0	77.62	44	44
San Francisco.....	68.8	112.5	63.52	44	44
Seattle.....	62.5	90.0	44.00	44	44
Average.....	51.84	80.9	56.2	45.5	44.0
Cities.....	32	29		32	28

<sup>1</sup> From information supplied by Mass. Bureau of Labor Statistics.<sup>2</sup> 44 hours per week June to Sept. inc.

## STEAMFITTERS.

	Hourly rate in cents		Per cent Increase.	Hours per week.	
	1914	1919		1914	1919
Boston.....	50.0	100.0	100.0	44	44
Buffalo.....	56.3	81.2	44.3	48	44
Manchester.....	31.3	75.0	139.6	48	44
Newark.....	62.5	87.5	40.0	44	44
New York.....	68.8	87.5	27.2	44	44
Philadelphia.....	50.0	81.2	62.4	44	44
Pittsburgh.....	62.5	96.3	54.1	48	44
Providence.....	43.8	90.0	105.5	44	44
Scranton.....	46.9	75.0	59.9	48	44
Baltimore.....	50.0	100.0	100.0	48	44
Jacksonville.....	62.5	100.0	60.0	48	44
Richmond.....	50.0	81.2	62.4	48	44
Washington.....	55.0	100.0	81.8	44	44
Chicago.....	75.0	100.0	33.3	44	44
Cleveland.....	62.5	100.0	60.0	44	44
Detroit.....	56.3	87.5	55.4	48	44
Indianapolis.....	62.5	87.5	40.0	44	44
Kansas City.....	68.8	100.0	45.4	44	44
Milwaukee.....	56.3	81.2	44.2	44	44
Minneapolis.....	62.5	87.5	40.0	44	44
Omaha.....	68.3	100.0	46.4	44	44
St. Louis.....	75.0	100.0	33.3	44	44
Dallas.....	75.0	100.0	33.3	44	44
Little Rock.....	62.5	87.5	40.0	48 <sup>1</sup>	44
Louisville.....	50.0	90.0	80.0	44	44
Memphis.....	62.5	87.5	40.0	44	44
New Orleans.....	56.3	87.5	55.4	48	44
Denver.....	62.5	100.0	60.0	48	44
Los Angeles.....	56.3	100.0	77.6	48	44
Portland.....	75.0	100.0	33.3	44	44
Salt Lake City.....	75.0	100.0	33.3	44	44
San Francisco.....	75.0	112.5	50.0	44	44
Seattle.....	75.0	100.0	33.3	44	44
Average.....	61.2	92.8	51.6	44.4	44.0
Cities.....	33	33		33	33

<sup>1</sup> 44 hours June to Sept. Incl.

## STRUCTURAL IRON WORKERS.

	Hourly Rate in Cents.		Per cent Increase.	Hours per Week	
	1914	1919		1914	1919
Boston.....	62.5	100.0	60.00	44	44
Buffalo.....	62.5	92.5	48.00	48	44
Newark.....	62.5	100.0	60.00	44	44
New Haven.....	62.5	87.5	40.00	44	44
New York.....	62.5	87.5	40.00	44	44
Philadelphia.....	60.0	100.0	66.66	44	44
Pittsburgh.....	62.5	100.0	60.00	44	44
Providence.....	62.5	87.5	40.00	44	44
Scranton.....	56.3	100.0	77.62	48	44
Atlanta.....	62.5	87.5	40.00	44	44
Baltimore.....	56.3	100.0	77.62	44	44
Richmond.....	56.3	87.5	55.42	44	44
Washington.....	62.5	100.0	60.00	44	44
Chicago.....	68.0	100.0	47.06	<sup>1</sup> 44	44
Cincinnati.....	62.5	92.5	48.00	<sup>1</sup> 44 <sup>1</sup>	
Cleveland.....	70.0	100.0	42.86	<sup>2</sup> 44	44
Detroit.....	65.0	100.0	53.84	<sup>3</sup> 48	44
Indianapolis.....	68.0	85.0	25.00	44	44
Kansas City.....	65.0	92.5	42.31	44	44
Milwaukee.....	62.5	87.5	40.00	<sup>4</sup> 44	44
Minneapolis.....	62.5	92.5	48.00	<sup>4</sup> 44	44
St. Louis.....	65.0	92.5	42.38	44	44
Birmingham.....	62.5	87.5	40.00	44	44
Dallas.....	62.5	100.0	60.00	44	44
Louisville.....	50.0	87.5	75.00	44	44
Memphis.....	65.0	92.5	42.31	44	44
Denver.....	56.3	100.0	77.62	44	<sup>4</sup> 44
Los Angeles.....	50.0	75.0	50.00	48	44
Portland.....	62.5	100.0	60.00	44	44
Salt Lake City.....	62.5	100.0	60.00	44	44
San Francisco.....	75.0	100.0	33.33	44	44
Seattle.....	62.5	100.0	60.00	44	44
Average.....	62.1	94.2	51.7	44.5	44.0
Cities.....	32	32		32	31

<sup>1</sup> 48 hours week, Dec.-March Inc.<sup>2</sup> 48 hours week, Oct. to April Inc.<sup>3</sup> 44 hours week, June to Sept. Inc.<sup>4</sup> 48 hours week, Nov. to April Inc.



## CHAPTER 4.

## BUILDING TRADES, NEW YORK CITY.

The New York Building Trades Council issues a statement periodically of the prevailing rates of wages in the building trades of that city. The following table gives the rates thus reported for the principal building trades for 1914 and September 1919. All rates are based on 8 hours work per day, with a half holiday on Saturday.

UNION WAGES IN THE PRINCIPAL BUILDING TRADES IN NEW YORK CITY,  
1914 and 1919.

(Rates per day.)

Occupation.	1914	1919	Per cent increase
Asbestos workers, boiler fitters, pipe coverers, insulators...	\$4.75	\$6.40	34.7
Boilermakers and iron ship builders.....	5.00	8.00	60.0
Bricklayers.....	6.00	.....	.....
Carpenters and framers.....	5.00	6.50	30.0
Cement and concrete masons.....	5.00	7.20	44.0
Elevator constructors.....	5.28	6.80	28.8
Electrical workers.....	4.80	6.00	25.0
Engineers, stationary.....	4.50	6.50	44.0
Engineers, portable hoisting.....	6.00	7.50	25.0
Housesmiths, bridgemen and structural iron workers.....	5.00	7.00	40.0
Ironworkers, bronze, metal furniture and metal trim workers	5.00	7.00	40.0
Metallic lathers.....	5.00	6.50	30.0
Marble cutters and setters.....	5.50	6.50	18.2
Mosaic workers.....	4.50	5.50	22.2
Machinists of all descriptions.....	5.00	8.00	60.0
Plate and sheet glass glaziers.....	3.50	6.00	71.4
Plasterers, plain and ornamental.....	5.50	7.50	36.4
Plumbers and gas fitters.....	5.50	7.00	27.3
Painters.....	4.00	8.00	100.0
Riggers on machinery, dynamos, boilers.....	4.00	7.00	75.0
Roofers, tar, felt, composition, damp and water proofers...	4.25	5.60	31.8
Rockmen and excavators.....	2.50	4.60	84.0
Sheet metal workers, coppersmiths, tinsmiths, metal workers	5.00	6.00	20.0
Slate and tile roofers.....	5.00	6.50	30.0
Steam, hot water and general pipe fitters.....	5.50	7.00	27.3
Tile layers.....	5.50	6.50	18.2
Tunnel and subway constructors.....	3.75	5.00	33.3
Varnishers.....	4.00	8.00	100.0
Wood lathers.....	.....	7.00	.....

<sup>1</sup>Will be \$8.00 per day beginning January 1, 1920.



## CHAPTER 5.

## BUILDING TRADES, COMMON LABOR.

The following table presents the union wage rates of hod carriers, building and common laborers in 31 cities for the year 1914 and 1919. The data were compiled from the scales of the International Hod Carriers, Building and Common Laborers' Union of America. The rates shown for 1919 were as given in the published scales of October 1918, and in most cases still in effect for a considerable part of 1919, altho changes may have occurred before the present time.

UNION RATES OF PAY PER HOUR (IN CENTS) OF HOD CARRIERS, BUILDING AND COMMON LABORERS, IN VARIOUS CITIES,  
1914 and 1919.

City.	Mason tending.		Plaster tending.		Concrete.		Excava'ing.	
	1914	1919	1914	1919	1914	1919	1914	1919
Albany, N. Y. ....	35.0	45.0	35.0	45.0	35.0	45.0	.....	45.0
Asbury Park, N. J. ....	34.3	42.5	34.3	42.5	34.3	42.5	34.3	42.5
Augusta, Me. ....	30.0	45.0	30.0	45.0	28.5	45.0	25.0	45.0
Binghamton, N. Y. ....	31.3	45.0	.....	45.0	.....	.....	.....	.....
Lawrence, Mass. ....	30.0	50.0	37.5	60.0	28.5	45.0	25.0	45.0
Syracuse, N. Y. ....	28.0	.....	28.0	70.0	28.0	.....	28.0	.....
Mt. Vernon, N. Y. ....	37.5	47.0	37.5	47.0	37.5	47.0	.....	.....
Newburgh, N. Y. ....	35.0	50.0	35.0	50.0	35.0	50.0	35.0	50.0
Oneida, N. Y. ....	27.5	50.0	27.5	50.0	27.5	50.0	27.5	50.0
Portland, Me. ....	35.0	50.0	41.0	55.0	25.0	50.0	25.0	50.0
Scranton, Pa. ....	30.0	50.0	30.0	50.0	25.0	50.0	25.0	50.0
Washington, D. C. ....	25.0	50.0	31.3	50.0	25.0	40.0	25.0	40.0
Cleveland, Ohio. ....	31.3	55.0	35.0	55.0	30.0	55.0	.....	55.0
Coffeyville, Kan. ....	37.5	55.0	37.5	55.0	30.0	45.0	25.0	45.0
Dayton, Ohio. ....	40.0	70.0	42.5	60.0	.....	50.0	.....	55.0
Decatur, Ill. ....	40.0	55.0	40.0	55.0	.....	.....	40.0	.....
E. St. Louis, Ill. ....	45.0	65.0	50.0	65.0	30.0	60.0	25.0	50.0
Kansas City, Mo. ....	45.0	<sup>1</sup> 47.5	45.0	.....	.....	<sup>1</sup> 47.5	.....	.....
Lafayette, Ind. ....	37.5	50.0	37.5	50.0	.....	.....	.....	.....
Ottawa, Ill. ....	32.5	45.0	32.5	45.0	32.5	45.0	32.5	45.0
Racine, Wis. ....	40.0	47.5	40.0	50.0	35.0	47.5	35.0	.....
Sheboygan, Wis. ....	30.0	45.0	30.0	45.0	30.0	45.0	30.0	.....
Streator, Ill. ....	34.4	46.9	37.5	46.9	34.4	43.8	31.3	43.8
Covington, Ky. ....	42.5	65.0	45.0	65.0	.....	.....	.....	.....
Memphis, Tenn. ....	30.0	.....	37.5	50.0	.....	.....	.....	.....
Helena, Mont. ....	62.5	69.9	62.5	69.9	56.3	62.5	56.3	<sup>2</sup> 50.5
Los Angeles, Cal. ....	37.5	68.8	56.3	37.5	31.5	43.8	31.5	31.3
Portland, Ore. ....	37.5	62.5	50.0	75.0	37.5	62.5	.....	62.5
Reno, Nev. ....	43.8	.....	56.3	.....	.....	.....	.....	.....
San Jose, Cal. ....	56.3	75.0	62.5	75.0	.....	75.0	.....	75.0
Seattle, Wash. ....	37.5	.....	50.0	.....	37.5	<sup>3</sup> 70.0	.....	<sup>4</sup> 62.5
Average for all cities.	36.8	53.6	40.5	53.9	32.5	50.7	30.9	49.7
Per cent increase. ....	.....	45.7	.....	33.1	.....	56.0	.....	60.8

<sup>1</sup>47.5 to 50.0 cents.

<sup>2</sup>50.0 to 75.0 cents.

<sup>3</sup>70.0 to 75.0 cents.

<sup>4</sup>62.5 to 56.3 cents.

## CHAPTER 6.

## COAL MINING.

Anthracite and bituminous mining differ considerably in methods of work, but the two branches of the industry are not very dissimilar as regards occupations, the distribution of the labor force and the systems of wage payment. In both the employees fall into two general classes: (1) The miners proper who do the actual digging and cutting of the coal and who are paid, except when working under special conditions, on a tonnage basis; and (2) a large number of accessory occupations, such as hoisting and pumping engineers, machinists, carpenters and timbermen, who are almost always paid on a time basis.

## (1) ANTHRACITE COAL.

The existing wage rates for all classes of anthracite mine employees are directly based upon the award of the Anthracite Coal Strike Commission of 1903. The increases granted by that commission were in the form of flat percentage increases. No basic rates were fixed and the existing differentials between companies were maintained.

This system of wage advances has continued until the present. A series of agreements subsequent to 1903 have either continued the existing agreements or provided for certain fixed increases, usually in percentage form. The last of these series of increases resulted from an order of the Fuel Administration in the autumn of 1918.

In the conferences of the National Labor Adjusting Agencies, on whose recommendation this order was based, a memorandum of current wages and earnings of principal occupations was submitted as fairly typical of existing conditions. The table below gives the rates for 1916 as contained in this memorandum, the increases resulting from the order of the Fuel Administration, and a computation of the probable rates existing in 1914 as interpreted from the terms of the agreement of May 6, 1916. As the existing rates differed between companies the memorandum gave simply high and low rates, and this is necessarily followed in the table here presented.

The mines operate on a basic 8 hour day for practically all time workers. The contract miners decide in considerable degree the number of hours they care to work but 8 hours per day is the customary maximum.

**WAGES AND EARNINGS IN THE ANTHRACITE COAL INDUSTRY,  
1914 to 1919.**

(Compiled from wage agreements and memorandum submitted to the Conference of National Labor  
Adjusting Agencies, November, 1918.)

Occupations.	1914		1916 (Agreement May 6, 1916.)		1919 (In effect since Oct. 1, 1918.)		Per cent of increase 1919 over 1914.	
	Low.	High.	Low.	High.	Low.	High.	Low.	High.
<b>OUTSIDE LABOR</b>								
Blacksmiths.....	\$0.277	\$0.303	\$0.320	\$0.350	\$0.57	\$0.60	105.8	98.0
Carpenters.....	.277	.303	.320	.350	.57	.60	105.8	98.0
Shaft engineers.....	.350	.390	.360	.400	.61	.65	74.3	66.7
Firemen.....	.20	.242	.230	.280	.48	.53	140.0	119.0
Machinery repairmen..	.26	.278	.300	.320	.55	.57	111.5	105.0
Laborers.....	.169	.203	.195	.235	.42	.46	148.5	126.6
<b>INSIDE LABOR</b>								
Company miners.....	.277	.303	.32	.35	.57	.60	105.8	98.0
Inside laborers.....	.225	.251	.26	.29	.51	.64	126.7	155.0
<b>Daily rates.</b>								
Contract laborers.....	1.94	3.00	2.08	3.20	3.70	5.16	90.7	72.0
Consideration miners...	2.99	3.36	3.20	3.60	5.00	5.50	67.2	63.7
Contract miners.....	5.26	5.26	5.63	5.63	6.63	6.63	26.0	26.0

<sup>1</sup>Average per start.

## (2) BITUMINOUS MINING.

Bituminous coal is mined in about one-half of the States of the Union, but almost three-quarters of the tonnage in recent years has been produced in western Pennsylvania, Ohio, Illinois, Indiana, and West Virginia. With the exception of West Virginia, the mine workers of these states are strongly organized and for a number of years have been working under fixed agreements, usually biennial, with the mine operators. Instead, however, of a single agreement for the industry, such as exists in anthracite mining, there are a number of district agreements.

These district agreements differ in their wage scales, but the differences are based on differences in the physical difficulties of mining and the wage changes have usually been more or less uniform in the several districts. Thus for the four States above mentioned—known as the central competitive field—a single wage agreement, which uses the Hocking Valley District of Ohio as a basing district, constitutes the basic agreement for all four States. Therefore, the wage changes in the Hocking Valley District may be taken as representative of the trend of wage rates in this whole field and, in a general way, for practically all bituminous mining in the country. The table below shows, for this district and also for the Pittsburgh District, the tonnage rates for miners and the daily wage rates of several important occupations which are on a time basis, for 1914 and 1919. Since 1914, practically all wage rates in the central competitive field have been computed on the basis of mine-run coal.

The rates now in effect (September 1919) were last modified by the so-called Washington Agreement of October 6, 1917. This was drawn to run not to exceed two years from April 1, 1918. In 1918 the question of further increases was discussed but was denied by the Fuel Administration on October 26, 1918. (See Monthly Labor Review of United States Bureau of Labor Statistics for November 1918, for an account of the discussion.)

The 8-hour day prevails in the industry.

RATES OF WAGES OF MINERS AND DAY LABORERS, BITUMINOUS COAL MINING  
MINE-RUN BASIS,  
1914 and 1919.

Occupation.	1914	1919	Per cent of increase.
<b>HOCKING VALLEY DISTRICT.</b>			
Mining, rates per ton.			
Pick mining.....	\$0.676	\$0.8764	30
Machine mining—chain machines. Cutting, drilling and loading-in rooms.....	.47	.70	49
Inside labor, rates per day.			
Tracklayers, cagers, drivers, trip riders, water haulers, machine haulers, timbermen, wiremen and motormen.....	2.84	5.00	76
Tracklayers' helpers.....	2.62	4.75	81
Trappers.....	1.32	2.65	101
Pipemen.....	2.78	4.92	77
Outside labor, rates per day.			
First blacksmiths.....	3.12	5.27	69
Second blacksmiths and carpenters.....	2.81	4.95	76
Blacksmiths' helpers, dumpers and trimmers.....	2.62	4.75	81
Greasers and couplers.....	1.56	3.64	133
<b>PITTSBURGH DISTRICT.</b>			
Mining, rates per ton.			
Pick mining:			
Thin vein.....	\$0.6464	\$0.8764	36
Thick vein.....	.5611	.7911	41
Machine mining—chain machines: Cutting and loading-in rooms.			
Thin vein.....	.4461	.70	57
Thick vein.....	.3892	.6431	65
Inside labor, rates per day.			
Tracklayers, drivers, cagers, trip rope riders water haulers and timbermen.....	2.84	5.00	76
Tracklayers' helpers.....	2.62	4.75	81
Trappers.....	1.25	2.65	112
Pipemen.....	2.78	4.92	77



## CHAPTER 7.

## DREDGE AND TUGBOAT EMPLOYEES, GREAT LAKES, 1914 TO 1919

The present rates of wages of the dredge and tugboat employees of the Great Lakes are governed by an award of the National Adjustment Commission of United States Shipping Board, effective April 1, 1919, and operative until March 31, 1920.

The wage rates of these employees in river and harbor improvements, submarine excavation, breakwater work, etc., are shown in the attached table. The working day consisted of twelve working hours in 1914, but was reduced to an eight and ten hour basis in 1919.

The data are summarized from the Monthly Labor Review of the United States Bureau of Labor Statistics for June 1919.

## RATE OF WAGES PER HOUR (INCLUDING BOARD) OF DREDGE AND TUG BOAT EMPLOYEES OF THE GREAT LAKES.

(Compiled from Monthly Labor Review of the U. S. Bureau of Labor Statistics, June, 1919.)

Occupation.	1914-1916 (12-hr. day.)	1919 (8-hr. day.)	Per cent increase.
Dipper dredges.			
First engineer.....	51.4	89.6	74.3
Second engineer.....	40.3	72.9	80.9
Craneman.....	37.2	68.6	84.4
Second craneman.....	34.2	.....	.....
Hydraulic dredge, 16 in. and under.			
Engineer.....	46.0	81.3	76.7
Next in rank.....	37.5	68.6	83.0
Hydraulic dredge, 17 in. and over.			
Engineer.....	51.4	89.6	74.3
Next in rank.....	40.3	72.9	80.9
Dredge workers.			
Oiler.....	28.0	56.3	101.1
Fireman.....	28.0	56.3	101.1
Deckhand.....	25.0	51.7	106.8
Watchman.....	28.0	56.3	101.1
Scowman.....	25.0	51.7	106.8
	(12-hr day.)	(10-hr. day.)	
Licensed tugmen.			
Captain (waiting on dredge), Chicago.....	55.5	85.0	53.2
Captain (other tugs), Chicago and South Chicago.....	50.0	78.3	56.6
Captain, all other ports.....	43.0	71.7	66.7
Engineer, Chicago and South Chicago.....	43.0	70.0	62.8
Engineer, all other ports.....	40.3	68.3	69.5
Second engineer and mate, Chicago and South Chicago.....	37.5	.....	.....
Second engineer and mate, all other ports.....	34.7	.....	.....
Tug fireman and lineman.			
Chicago and South Chicago.....	27.7	52.5	89.5
Cleveland.....	26.4	50.8	92.4
All other ports.....	25.0	49.2	96.8

## CHAPTER 8.

## FARM LABOR.

The wages of farm labor in the various States of the United States are collected and published annually by the United States Department of Agriculture. The latest available data are for 1918. They are shown in the two following tables together with the data for 1914. The first table is a summary for the whole country; the second table gives the monthly wage rates by States.

WAGES OF HIRED FARM LABOR: MONTHLY AND DAILY, WITHOUT BOARD, 1914  
and 1918, ALL STATES COMBINED

(Reports of the U. S. Department of Agriculture.)

	1914	1918	Per cent increase.
By the month (without board).....	\$29.88	\$47.07	57.5
Day labor at harvest.....	1.91	3.22	68.6
Day labor not harvest.....	1.45	2.63	81.4

WAGES OF HIRED FARM LABOR PER MONTH, WITHOUT BOARD, BY STATES,  
1914 and 1918.  
(Reports of the U. S. Department of Agriculture.)

States.	1914	1918	Per cent increase.
Alabama.....	\$18.90	\$30.00	58.7
Arizona.....	48.00	80.00	66.7
Arkansas.....	24.00	40.50	68.8
California.....	50.00	78.00	56.0
Colorado.....	44.60	73.50	64.8
Connecticut.....	37.80	63.00	66.7
Delaware.....	26.50	46.00	73.6
Florida.....	24.50	38.00	55.1
Georgia.....	18.00	32.60	81.1
Idaho.....	51.00	86.25	69.1
Illinois.....	33.00	52.00	57.6
Indiana.....	30.10	47.00	56.1
Iowa.....	40.00	64.00	60.0
Kansas.....	35.10	56.40	60.7
Kentucky.....	24.20	41.00	69.4
Louisiana.....	20.70	35.90	73.4
Maine.....	37.20	65.50	76.1
Maryland.....	26.00	45.00	73.1
Massachusetts.....	41.00	66.50	62.2
Michigan.....	34.70	52.50	51.3
Minnesota.....	40.80	62.70	53.7
Mississippi.....	18.20	30.50	67.6
Missouri.....	29.20	45.00	54.1
Montana.....	52.80	83.00	57.2
Nebraska.....	39.70	67.00	68.8
Nevada.....	56.00	85.00	51.8
New Hampshire.....	38.50	63.50	64.9
New Jersey.....	34.00	61.00	79.4
New Mexico.....	36.60	59.00	61.2
New York.....	35.70	56.50	58.3
North Carolina.....	21.90	37.50	71.2
North Dakota.....	45.10	72.00	59.6
Ohio.....	31.80	49.70	56.3
Oklahoma.....	28.80	50.00	73.6
Oregon.....	46.00	76.00	65.2
Pennsylvania.....	31.20	52.00	66.7
Rhode Island.....	38.40	60.00	56.3
South Carolina.....	16.50	28.00	69.7
South Dakota.....	43.50	77.50	78.2
Tennessee.....	21.10	35.70	69.2
Texas.....	27.00	43.00	59.3
Utah.....	50.00	84.00	68.0
Vermont.....	37.50	62.00	65.3
Virginia.....	22.80	39.50	73.2
Washington.....	48.40	85.00	75.6
West Virginia.....	30.00	54.50	81.7
Wisconsin.....	39.90	60.20	50.9
Wyoming.....	50.00	83.00	66.0
Average all States.....	29.88	47.07	57.5
GEOGRAPHICAL DIVISIONS			
North Atlantic.....	34.71	57.24	64.9
South Atlantic.....	21.50	37.44	74.1
North Central (East Mississippi).....	33.55	51.91	54.7
North Central (West Mississippi).....	37.13	49.32	32.8
South Central.....	23.19	38.57	66.3
Far Western.....	48.17	78.64	63.3

## CHAPTER 9.

## GARMENT TRADES, NEW YORK CITY.

Active wage movements have occurred in the garment industries during 1917 and 1918, but as yet there is comparatively little precise information available as to rates of wages and earnings in the industry. The weekly wage rates in the dress and waist industry for New York City, for 1913, 1916, and 1919, are shown in the following table. The data presented are very valuable as wages in the dress and waist industry may be taken as indicating the wage trend in the garment trades generally, and New York City is the principal center of these trades. The table, as will be noted, deals solely with timeworkers.

Under the present working agreement the weekly hours of labor are limited to 44, with double rate for overtime.

WEEKLY RATES OF WAGES IN DRESS AND WAIST INDUSTRY ON SPECIFIED DATES.  
NEW YORK CITY.

(Monthly Labor Review of the U. S., Bureau of Labor Statistics, June, 1919, p. 5.)

Occupations.	Rates in effect in			Per cent increase. 1919 over 1916.
	1913	1916	Apr., 1919.	
WEEK WORKERS.				
Pressers (on woollens).....	\$20.00	\$23.00	\$33.00	43.5
Cutters:				
Grade A, first year.....	6.00	6.00	12.00	100.0
Grade B, second year.....	12.00	12.00	18.50	54.2
Grade C, third year.....	18.00	18.00	27.00	50.0
Grade D, fourth year, but not full-fledged.....	( <sup>1</sup> )	21.00	30.00	42.9
Grade E, fourth year, full-fledged.....	25.00	25.00	35.00	40.0
Grade F, 1 year after becoming full-fledged.....	( <sup>1</sup> )	27.50	38.00	38.2
Examiners.....	10.00	11.50	17.50	52.2
Drapers.....	14.00	15.00	23.00	53.3
Joiners.....	12.00	13.00	19.00	46.2
Finishers.....	8.00	9.50	15.50	63.2
Sample makers.....	14.00	15.00	22.50	50.0
Ironers, male.....	15.00	16.50	24.50	48.5
Ironers, female.....	12.00	14.00	20.50	46.4
Cleaners, girls:				
Under 16, first year.....	6.00	6.00	( <sup>2</sup> )	.....
Under 16, second year.....	6.00	7.00	( <sup>2</sup> )	.....
16 and over, first year.....	( <sup>2</sup> )	7.00	11.50	64.3
16 and over, second year.....	( <sup>2</sup> )	8.50	13.00	52.9

<sup>1</sup>No such grade.

<sup>2</sup>\$38.00 per week if required to do pattern grading.

<sup>3</sup>Not specified.



## CHAPTER 10.

## HARBOR EMPLOYEES, NEW YORK.

The monthly wage rates of employees on the tugs, ferry boats, barges and other crafts in the commerce of New York Harbor are given in the following table for July 1914 and July 1919. The range of rates between high and low are shown as no averages can very well be drawn from the data available.

MONTHLY WAGE RATES OF NEW YORK HARBOR EMPLOYEES,  
1914 and 1919.<sup>1</sup>

(Compiled from data in Bureau of Labor Statistics and in office of the Executive Secretary, Harbor Wage Adjustment Board, New York.)

Occupation. <sup>2</sup>	July, 1914.		July, 1919. <sup>3</sup>		Per cent increase.	
	Low.	High.	Low.	High.	Low.	High.
<b>TUGS, STEAM LIGHTERS, AND OTHER SELF PROPELLED BOATS</b>						
Captains.....	\$115.00	\$165.00	\$174.50	\$244.50	51.74	48.18
Mates and pilots.....	75.00	115.00	110.00	199.50	46.67	73.48
Engineers.....	100.00	140.00	164.50	209.50	64.50	49.64
Oilers.....	60.00	75.00	99.50	115.00	65.83	53.33
Firemen.....	55.00	75.00	99.50	115.00	80.91	53.33
Deck-hands.....	50.00	70.00	99.50	110.00	99.00	57.14
Cooks.....	50.00	65.00	99.50	105.00	99.00	61.54
<b>FERRY BOATS (4)</b>						
Captains or pilots.....	125.00	160.00	175.00	190.00	40.00	18.75
Wheelmen.....	60.00	70.00	95.00	110.00	58.33	57.14
Engineers.....	100.00	150.00	165.00	180.00	65.00	20.00
Oilers.....	55.00	95.00	95.00	120.00	72.73	26.32
Firemen.....	40.00	95.00	95.00	115.00	137.50	21.05
Deck-hands.....	50.00	66.00	85.00	105.00	70.00	59.09
<b>COVERED BARGES AND LIGHTERS</b>						
Captains.....	45.00	80.25	112.65	130.00	150.33	61.99
Engineers.....	63.60	80.25	125.65	140.00	97.56	74.45
<b>CANAL BOATS, GRAIN BOATS, SCOWS AND DUMPERS</b>						
Captains.....	40.00	60.00	100.00	110.00	150.00	83.33
<b>CAR FLOATS AND CATTLE FLOATS</b>						
Floatmen.....	55.00	65.00	105.00	105.00	90.91	61.54

<sup>1</sup>Includes board where board is allowed in addition to wages.

<sup>2</sup>Occupations as shown constitute all occupations represented in the specified crafts.

<sup>3</sup>Agreement with Railroad Administration and with private boat owners.

<sup>4</sup>Ferry boat scale is least satisfactory in that awards were not complied with and city ferries are included. Moreover, in 1919 no new agreement was made with private ferries and rates represent railroad ferries only.

## CHAPTER 11.

## IRON AND STEEL INDUSTRY.

Detailed information regarding earnings and hours of labor in the iron and steel industry over a series of years are published in the Monthly Labor Review of the United States Bureau of Labor Statistics for October 1919. The contents of that study are summarized in the tables below, which give, for 1914 and 1919, by principal departments, the average hourly earnings and average full time hours per week for each of the principal occupations. No separation by geographical districts is made except in the case of common labor, for which the data are shown by four districts—Eastern, Pittsburgh, Great Lakes and Middle Western and Southern, and also by all districts combined.

HOURLY EARNINGS (IN CENTS) AND FULL TIME HOURS PER WEEK IN IRON  
AND STEEL INDUSTRY, 1914 and 1919.

(Compiled from Bulletin and Monthly Labor Review of U. S. Bureau of Labor Statistics).

## BLAST FURNACES.

Occupation.	Average earnings per hour		Per cent Increase.	Average full time hours per week.	
	1914	1919		1914	1919
Stockers.....	18.8	46.4	146.81	74.9	79.2
Bottom fillers.....	17.4	43.6	150.57	83.3	82.2
Top fillers.....	21.0	46.8	122.86	80.1	76.7
Larrymen.....	21.5	51.6	140.00	78.6	79.4
Larrymens' helpers.....	18.7	49.2	163.10	78.6	78.5
Skip operators.....	21.4	53.6	150.47	79.5	79.5
Blowers.....	33.3	75.0	125.23	80.7	79.1
Blowing engineers.....	26.2	62.4	138.17	79.3	78.3
Keepers.....	23.3	55.7	139.06	79.6	80.2
Keepers' helpers.....	18.5	47.0	154.05	80.6	79.5
Iron handlers and loaders.....	21.8	36.1	65.60	73.8	73.2
Pig machine men.....	19.2	47.6	147.92	79.2	79.9
Cinderemen.....	17.6	47.3	168.75	78.3	77.2
Laborers, all districts.....	17.7	45.5	157.06	70.8	78.9
Eastern.....	15.3	42.3	176.47	68.7	76.2
Pittsburgh.....	19.2	48.3	151.56	73.1	82.0
Great Lakes and Middle West.....	19.0	46.5	144.74	68.9	73.1
Southern.....	13.7	33.0	140.87	73.1	76.7

## BESSEMER CONVERTERS.

Occupation.	Average earnings per hour		Per cent Increase.	Average full time hours per week.	
	1914	1919		1914	1919
Stockers.....	35.1	63.6	81.20	55.5	64.0
Cupola melters.....	39.0	101.3	159.74	59.5	59.4
Cupola toppers.....	28.6	78.8	175.52	56.9	58.9
Blowers.....	54.5	126.7	132.48	64.1	63.1
Regulators (1st).....	32.8	84.2	156.71	63.8	68.2
Regulators (2nd).....	28.9	73.3	153.63	66.5	64.4
Vesselmen.....	49.9	110.0	120.44	55.6	60.3
Vesselmen's helpers.....	34.2	85.7	150.58	54.3	61.1
Cinder pitmen.....	21.3	58.1	172.77	71.9	71.0
Bottom makers.....	29.3	73.0	149.15	73.0	64.8
Bottom helpers.....	22.5	59.5	164.44	72.4	70.3
Ladle liners.....	30.4	75.6	148.68	68.6	69.7
Ladle helpers.....	22.2	55.1	148.20	69.1	71.6
Stopper makers.....	25.1	62.8	150.20	70.2	70.0
Stopper setters.....	37.6	109.8	192.02	50.7	59.8
Steel pourers.....	44.4	108.2	143.69	52.5	58.5
Mold cappers.....	26.0	67.1	158.08	60.8	61.1
Ingot strippers.....	31.3	73.6	135.14	66.0	64.2
Laborers, all districts.....	19.3	48.9	153.37	74.0	71.1
Pittsburgh.....	19.3	48.5	151.30	74.7	74.2
Great Lakes and Middle West.....	19.1	50.6	164.92	71.8	58.1

## OPEN HEARTH.

Occupation.	Average earnings per hour		Per cent Increase.	Average full time hours per week.	
	1914	1919		1914	1919
Stokers.....	20.4	50.1	125.59	77.0	74.9
Stock Cranemen.....	23.7	57.4	142.19	78.4	72.0
Charging machine operators.....	30.7	76.3	148.53	77.4	73.0
Melters' helpers (1st).....	42.0	96.9	130.71	75.6	73.0
Melters' helpers (2nd).....	27.8	69.5	150.00	74.7	72.1
Melters' helpers (3rd).....	20.7	54.6	163.77	77.4	73.4
Stopper setters.....	28.7	66.3	131.01	75.0	71.4
Steel Pourer.....	33.9	78.1	130.38	76.4	70.4
Mold coppers.....	23.2	59.2	155.17	77.7	73.8
Ladle Cranemen.....	30.5	73.6	141.31	76.5	71.9
Ingot strippers.....	29.2	72.9	149.66	75.8	66.6
Laborers, all districts.....	18.5	46.4	150.81	69.5	72.7
Eastern.....	16.9	40.8	141.42	67.2	67.5
Pittsburgh.....	18.8	47.3	151.60	71.3	78.5
Great Lakes and Middle West.....	19.1	48.6	154.45	69.5	76.8
Southern.....	16.9	38.8	129.59	64.3	65.0
Pacific Coast.....		49.0			56.0

## BLOOMING MILLS.

Occupation.	Average earnings per hour		Per cent Increase.	Average full time hours per week.	
	1914	1919		1914	1919
Pit Cranemen.....	35.7	81.2	127.45	66.6	66.1
Heaters.....	54.2	117.7	117.16	69.3	67.5
Heaters helpers.....	35.5	80.3	126.20	62.4	64.5
Bottom makers.....	37.0	83.3	125.14	68.6	64.9
Bottom makers helpers.....	27.3	64.5	136.26	69.8	67.4
Roll Engineers.....	44.7	93.4	108.95	65.6	62.6
Rollers.....	68.4	135.3	97.81	63.6	60.4
Manipulators.....	39.4	92.5	134.77	62.4	61.1
Table men.....	31.4	64.8	106.37	63.6	62.2
Shearmen.....	34.5	79.0	128.99	65.0	63.1
Shearmen helpers.....	25.6	59.7	133.20	68.4	66.6
Laborers, all districts.....	18.7	46.9	150.80	71.7	69.6
Eastern.....	17.2	43.7	154.07	61.3	70.2
Pittsburgh.....	19.0	48.9	154.69	72.0	71.9
Great Lakes and Middle West.....	19.0	48.0	152.63	72.0	65.7
Southern.....	14.8	38.6	160.81	74.1	76.6

## WAGES IN VARIOUS INDUSTRIES.

## PLATE MILLS.

Occupation.	Average earnings per hour		Per cent Increase.	Average full time hours per week.	
	1914	1919		1914	1919
Charging Crane and Charging machine Operators.....	30.6	78.6	156.86	70.2	71.1
Heaters.....	52.9	123.9	134.21	70.5	70.6
Heaters helpers.....	24.7	59.9	142.51	67.7	71.1
Roll engineers.....	30.7	75.3	145.28	70.2	72.1
Rollers.....	70.3	129.1	83.64	68.0	70.5
Screw-men.....	43.4	112.0	158.06	68.7	71.0
Table operators.....	31.7	83.3	162.78	67.6	70.6
Hook-men.....	29.4	81.1	175.85	68.2	71.2
Roll hands (other).....	25.7	66.7	159.53	67.4	71.1
Shearmen.....	40.6	98.2	141.87	68.4	70.7
Shearmen helpers.....	24.3	63.0	159.26	68.2	71.9
Laborers, all districts.....	17.4	44.9	158.00	67.6	68.8
Eastern.....	15.1	36.8	143.71	61.6	65.8
Pittsburgh.....	18.8	48.4	157.45	71.5	70.3
Great Lakes and Middle West.....	19.0	46.9	146.84	71.3	69.0

## SHEET MILLS.

Occupation.	Average Earnings Per Hour		Per cent Increase.	Average Full Time hours per Week	
	1914	1919		1914	1919
Pair heaters.....	54.0	105.3	95.00	42.8	43.6
Rollers.....	143.1	257.5	79.94	42.8	43.6
Roughers.....	64.8	130.7	101.69	42.8	43.7
Catchers.....	63.6	118.2	85.84	42.8	42.8
Matchers.....	48.4	98.0	102.48	42.8	43.7
Doublers.....	46.2	92.8	100.87	42.8	43.6
Sheet heaters.....	96.6	187.8	94.40	42.8	43.7
Sheet heaters helpers.....	48.5	95.5	96.91	42.8	43.2
Shearmen.....	86.0	153.4	78.37	42.9	43.5
Shearmen helpers.....	28.2	70.5	150.00	42.9	46.6
Openers (male).....	28.2	68.5	142.91	42.8	44.0
Laborers, all districts.....	18.8	46.0	144.68	65.9	66.5
Pittsburgh.....	19.2	45.5	136.98	65.8	70.6
Great Lakes and Middle West.....	18.0	46.6	158.89	66.4	61.5

## COMMON LABORERS, BY DISTRICTS AND BY DEPARTMENTS.

District and year.	All departments.	Blast furnaces.	Bessemer Converters.	Open-hearth furnaces.	Bloom-ing mills.	Plate mills.	Sheet mills.
Eastern:							
1914.....	16.1	15.3	.....	16.9	17.2	15.1	.....
1919.....	40.9	42.3	.....	40.8	43.7	36.8	.....
Pittsburgh:							
1914.....	19.1	19.2	19.3	18.8	19.2	18.8	19.2
1919.....	48.3	48.3	48.5	47.3	48.9	48.4	45.5
Great Lakes and Middle West:							
1914.....	19.0	19.0	19.1	19.1	19.0	19.0	18.0
1919.....	47.9	46.5	50.6	48.6	48.0	46.9	46.6
Southern:							
1914.....	15.1	13.7	.....	16.9	14.8	.....	.....
1919.....	36.8	33.0	.....	38.8	38.6	.....	.....
Total <sup>1</sup> :							
1914.....	17.3	16.8	19.2	17.9	17.6	17.6	18.6
1919.....	43.5	42.5	49.6	43.9	44.8	44.7	46.1

<sup>1</sup>Unweighted average.

## CHAPTER 12.

## LONGSHOREMEN.

The hourly rates of wages of longshoremen in 14 principal American ports, in July 1914 and July 1919, are shown in the following table. Longshoremen in deepwater traffic have different rates from those in coastwise traffic and are therefore shown separately.

Under the present agreements longshoremen are working on the basic 8-hour day and 44-hour week.

HOURLY RATES OF WAGES OF LONGSHOREMEN (DEEPWATER) IN FOURTEEN  
PRINCIPAL AMERICAN PORTS,  
July, 1914, and July, 1919.

(Report of the Director of the Marine and Dock Industrial Relations Division, U. S. Shipping Board  
Washington, 1919.)

Port and district.	Rate of wages in cents per hour in July.		Per cent increase.
	1914	1919	
Boston.....	\$0.33	\$0.65	97.0
New York.....	.33	.65	97.0
Philadelphia.....	.30	.65	116.7
Baltimore.....	.25	.65	160.0
Norfolk.....	.25	.65	160.0
North Atlantic average.....	.292	.65	122.6
Charleston.....	.20	.50	150.0
Savannah.....	.25	.50	100.0
South Atlantic average.....	.225	.50	122.2
Mobile.....	.30	.65	116.7
New Orleans.....	.40	.65	62.5
Galveston.....	.40	.65	62.5
Gulf Coast average.....	.367	.65	77.1
San Diego.....	.50	.80	60.0
San Francisco.....	.55	.80	45.5
Portland.....	.55	.80	45.5
Seattle.....	.45	.80	77.8
Pacific Coast average.....	.513	.80	55.9



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HOURLY RATES OF WAGES OF LONGSHOREMEN (COASTWISE) AT FOURTEEN  
PRINCIPAL AMERICAN PORTS,  
July, 1914, and July, 1919.

(Report of the Director of the Marine and Dock Industrial Relations Division, U. S. Shipping Board,  
Washington, 1919.)

Port or district.	Rate of wages in cents per hour in July.		Per cent increase.
	1914	1919	
Boston.....	\$0.30	\$0.65	116.7
New York.....	.30	.65	116.7
Philadelphia.....	.225	.65	188.9
Baltimore.....	.20	.65	225.0
Norfolk.....	.22	.65	195.5
North Atlantic average.....	.249	.65	161.0
Charleston.....	.25	.40	60.0
Savannah.....	.22	.40	81.8
Jacksonville.....	.20	.40	100.0
South Atlantic average.....	.223	.40	79.4
Mobile.....	.30	.45	50.0
New Orleans.....	.30	.45	60.0
Galveston.....	.30	.45	50.0
Gulf Coast average.....	.30	.45	53.3
San Diego.....	.475	.80	68.4
San Francisco.....	.50	.80	60.0
Portland.....	.50	.80	60.0
Seattle.....	.45	.70	55.6
Pacific Coast average.....	.481	.775	61.0

### CHAPTER 13.

#### METAL MINING.

The only information available regarding the wages of metal miners is that furnished by the report in the latter part of 1918 of the committee appointed by the Secretary of Interior to study the gold situation. This report contains interesting data on wages in gold, silver and copper mining in the Western States, for a series of years up to September 1918. These data, as printed in the Monthly Labor Review of the United States Bureau of Labor Statistics for April 1919, are summarized in the table below:

#### RATES OF WAGES PER DAY IN METAL MINING,

September, 1914 and 1918.

(Compiled from Monthly Review of U. S. Bureau of Labor Statistics, April, 1919.)

	Machine men.		
	Sept., 1914.	Sept., 1918.	Per cent increase.
Copper mining:			
Montana—			
Butte District.....	\$4.00	\$5.25-\$5.75	50-64
Arizona—			
Bisbee Phelps Dodge Corporation.....	3.60	6.10	69
Verde.....	3.50- 3.75	5.15- 5.90	47-57
Utah.			
Bingham-Utah Copper Co.....	3.25	4.75- 5.25	46-62
General Average.....	3.25	4.75- 5.25	46-62
Nevada.			
Ely District.....		5.75	
California.			
All Districts.....	3.25	4.00- 4.50	23-38
Copper and gold mining:			
Washington.....	3.50	5.00	43
Silver and gold mining:			
Nevada.			
Tonopah.....	4.50	5.50	22
Comstock.....	4.00	5.00	25
Gold mining:			
Nevada.			
Goldfield.....	4.00	4.00	(1)
Montana.			
Kendall, Barnes, King Development Co.....	3.50	4.00- 4.50	14-29
California.			
Mother Lode and Grass Valley.....	2.75- 3.00	3.50- 4.00	27-33

<sup>1</sup>No change.

	Hand miners.		
	Sept., 1914.	Sept., 1918.	Per cent increase.
Copper mining:			
Arizona.			
Verde.....	\$3.25-\$3.50	\$5.15-\$5.90	58-69
Utah.			
Bingham-Utah Copper Co.....	2.75- 3.00	4.50- 5.00	64-67
General Average.....	3.00- 3 25	5.00	67-54
All Districts.....		3.75- 4.25	.....
Copper and gold mining:			
Washington.....	3.50	5.00	43
Silver and gold mining:			
Nevada.			
Tonopah.....	4.50	5.50	22
Comstock.....	4.00	5.00	25
Gold mining:			
Nevada.			
Goldfield.....	4.00	4.00	(1)

<sup>1</sup>No change.

	Muckers.		
	Sept., 1914.	Sept., 1918.	Per cent increase.
Copper mining:			
Montana.			
Butte District.....	\$3.50	\$5.25-\$5.75	50-64
Arizona.			
Bisbee Phelps Dodge Corporation.....	3.75	5.25	40
Verde.....	2.75- 3.00	5.15- 5.90	87-97
Utah.			
Bingham-Utah Copper Co.....	2.75	4.25- 4.75	55-73
General Average.....	3.00	4.75	58
California.			
All Districts.....	2.50	3.50- 4.00	40-60
Copper and gold mining:			
Washington.....	3.00	4.50	50
Silver and gold mining:			
Nevada.			
Tonopah.....	4.00	5.00	25
Comstock.....	4.00	5.00	25
Gold mining:			
Nevada.			
Goldfield.....	3.75	3.75	(1)
Montana.			
Kendall, Barnes, King Development Co.....	3.50	4.00- 4.50	14-29
California.			
Mother Lode and Grass Valley.....	2.25- 2.50	3.00- 3.50	33-40

<sup>1</sup>No change.



## CHAPTER 14.

## METAL TRADES IN RAILROAD SHOPS.

An order of the Director General of Railroads of June 1918, (retroactive to Jan. 1918) established a minimum rate of 68 cents an hour for machinists, blacksmiths, boilermakers and practically all the other skilled trades in the railroad shops, and a minimum rate of 45 cents for helpers. Under the operation of the supplementary order recently announced these rates are raised approximately 4 cents an hour. The metal trades in the railroad shops are therefore now receiving a minimum wage rate of 72 cents an hour for journeyman and 49 cents for helpers. In the following table these rates are given for machinists, blacksmiths and boilermakers in comparison with the rates existing in May 1914 and May 1918. The data for these earlier years are compiled from the bulletins of the U. S. Bureau of Labor Statistics and represent averages for a large group of cities.

HOURLY WAGE RATES AND FULL TIME HOURS PER WEEK OF CERTAIN METAL TRADES IN RAILROAD SHOPS MAY 1914, MAY 1918 AND SEPT. 1919.

(Data for 1914 and 1918 from publications of U. S. Bureau of Labor Statistics).

	Years.	Rate per hour (cents)	Per cent Increase 1919 over 1914	Full time hours per week
Machinists.....	1914	38.7	—	53.7
.....	1918	68.0	—	48.0
.....	1919	72.0	86.0	48.0
Blacksmiths.....	1914	40.3	—	52.5
.....	1918	68.0	—	48.0
.....	1919	72.0	78.7	48.0
Boilermakers.....	1914	39.0	—	54.7
.....	1918	68.1	—	48.0
.....	1919	72.0	84.6	48.0

## CHAPTER 15.

## NAVY PAY TABLE.

As compiled from the Navy Register, 1919, issued by the Navy Department, the rates of pay of the enlisted personnel of the Navy are shown in the table below. The rates of 1914, as fixed by the act of May 13, 1908, represent merely ten per cent increases over the scale previously in effect. The rates fixed in 1917 by the act of May 22 of that year consist of increases graduated according to rates in effect at that time and will continue operative for at least six months after the termination of the war. The rates are minimum rates, and do not show increases due to re-enlistment. Enlisted men in the Navy receive food, housing and clothing in addition to their pay.

MONTHLY RATES OF PAY OF PRINCIPAL GRADES AND OCCUPATIONS IN THE NAVY  
(From the Navy Register, January 1, 1919, pp. 1008-1011 )

Grade or occupation.	1914 (Act May 13, 1908).	1919 (Act May 22, 1917).	Per cent increase.
<b>SEAMAN BRANCH.</b>			
Chief Petty Officers:			
Chief masters-at arms.....	\$71.50	\$77.50	8.4
Chief turret captains.....	66.00	72.00	9.1
Chief mates and quartermasters.....	55.00	61.00	10.9
Petty Officers, 1st class:			
Turret captains.....	55.00	61.00	10.9
Masters-at arms, mates, etc.....	44.00	52.00	18.2
Petty Officers, 2d class:			
Masters-at arms, mates, quatermasters.....	38.50	46.50	20.8
Petty Officers, 3d class.....	38.50	46.50	20.8
Seamen, 1st class:			
Seaman, gunners.....	28.00	34.00	21.4
Seamen.....	26.40	34.40	30.3
Seamen, 2d class:			
Messmen branch.....	20.90	35.90	71.8
Stewards (highest grade).....	66.00	72.00	9.1
Stewards and cooks, cabin, etc.....	55.00	61.00	10.9
Storage cooks.....	33.00	41.00	24.2
Mess attendants, 1st class <sup>1</sup> .....	33.00	41.00	24.2
Mess attendants, 2d class <sup>1</sup> .....	27.50	39.50	43.6
Mess attendants, 3d class <sup>1</sup> .....	22.00	37.00	68.1
<b>ARTIFICER BRANCH.</b>			
Chief Petty Officers:			
Special mechanics.....	139.70	145.70	4.3
Machinists, mates.....	77.00	83.00	7.8
Electricians.....	66.00	72.00	9.1
Printers.....	66.00	72.00	9.1
Carpenters, mates.....	55.00	61.00	10.9
Water tenders.....	55.00	61.00	10.9
Storekeepers.....	55.00	61.00	10.9
Petty Officers, 1st class:			
Mechanics, 1st class.....	88.00	94.00	6.8
Blacksmiths, 1st class.....	71.50	77.50	8.4
Coppersmiths, 1st class.....	71.50	77.50	8.4
Patternmakers, 1st class.....	71.50	77.50	8.4
Molders, 1st class.....	71.50	71.50	.....
Boilermakers.....	71.50	77.50	8.4
Machinists mates, 1st class.....	60.50	66.50	9.9
Coppersmiths.....	60.50	66.50	9.9
Shipfitters, 1st class.....	60.50	66.50	9.9
Electricians, 1st class.....	55.00	61.00	10.9
Blacksmiths.....	55.00	61.00	10.9
Plumbers and fitters.....	49.50	55.50	12.1
Watertenders.....	49.50	55.50	12.1
Engineers, 1st class.....	49.50	55.50	12.1
Painters, 1st class.....	44.00	52.00	18.2
Sailmakers, mates.....	44.00	52.00	18.2
Carpenters, mates, 1st class.....	44.00	52.00	18.2
Storekeepers, 1st class.....	44.00	52.00	18.2
Printers, 1st class.....	44.00	52.00	18.2
Petty Officers, 2nd class:			
Blacksmiths, 2nd class.....	55.00	66.00	20.0
Coppersmiths, 2nd class.....	55.00	61.00	10.9
Patternmakers, 2nd class.....	55.00	61.00	10.9
Molders, 2nd class.....	55.00	61.00	10.9
Machinists, mates, 2nd class.....	49.50	55.50	12.2
Electricians, 2nd class.....	44.00	52.00	18.2
Shipfitters, 2nd class.....	44.00	52.00	18.2
Engineers, 2nd class.....	44.00	52.00	18.2
Oilers.....	40.70	48.70	19.7
Carpenters, mates, 2nd class.....	38.50	46.50	20.8
Printers, 2nd class.....	38.50	46.50	20.8
Storekeepers, 2nd class.....	38.50	46.50	20.8
Petty Officers, 3rd class:			
Electricians, 3rd class.....	33.00	41.00	24.2
Carpenters, mates, 3rd class.....	33.00	41.00	24.2
Painters, 3rd class.....	33.00	41.00	24.2
Storekeepers 3rd class.....	33.00	41.00	24.2
Seamen, 1st class:			
Firemen, 1st class.....	38.50	46.50	20.8
Shipwrights.....	27.50	35.50	29.1
Seamen, 2nd class:			
Firemen, 2nd class.....	33.00	41.00	24.2
Seamen, 3rd class:			
Firemen, 3rd class.....	24.20	36.20	49.6
Landsmen.....	17.60	32.60	82.6

Lower rates to non-citizen of U. S., \$24, \$20, and \$16, respectively.

## CHAPTER 16.

## NAVY YARDS.

The hourly wage rates in 12 of the Navy Yards and stations of the United States Government are shown below for the years 1914 and 1919, except that for New Orleans and Pensacola the 1914 rates were not available and those for 1911 have been given instead. This affects the comparisons but little as between 1911 and 1914 there were only minor changes of rates and some occupations did not change at all.

The first table shows the rates for all yards combined. This is followed by a series of tables for the yards separately. At the present time the wage rates for navy yards are almost completely standardized, there being one series of rates for the Atlantic Coast and one for the Pacific Coast. The only important exception is in the case of common labor, for which lower rates are paid in the South Atlantic than in the North Atlantic district. The 8-hour basic day prevails in all these yards.

SUMMARY SHOWING AVERAGE RATES OF DAILY PAY IN SELECTED  
OCCUPATIONS IN NAVY YARDS:  
1914 and 1919.

Occupation.	Average rates of pay per day.		Per cent increase.
	1914	1919	
Boilermakers.....	\$3.69	\$6.40	73.4
Coppersmiths.....	3.92	6.88	75.5
Electricians.....	4.03	6.40	58.8
Machinists.....	3.81	6.40	68.0
Machinists, electrical.....	3.85	6.40	66.2
Molders.....	3.71	6.40	73.0
Patternmakers.....	4.07	6.93	70.3
Pipefitters.....	3.54	6.40	81.0
Plumbers.....	3.16	6.40	102.5
Riveters.....	3.47	6.40	84.4
Shipfitters.....	3.72	6.40	72.0
Shipsmiths.....	3.72	6.40	72.0
Toolmakers.....	4.00	6.88	72.0
Holders on.....	2.49	4.85	94.8
Laborers, common.....	2.03	3.56	75.4

## PORTSMOUTH, N. H.

Occupation.	Rates of pay per day.		Per cent increase.
	1914	1919	
Boilermakers.....	\$3.60	\$6.40	77.7
Coppersmiths.....	4.00	6.88	72.0
Electricians.....	4.00	6.40	60.0
Machinists.....	3.60	6.40	77.7
Machinists, Electrical.....	3.60	6.40	77.7
Molders.....	.....	6.40	.....
Pattern makers.....	4.00	6.88	72.0
Pipefitters.....	3.60	6.40	77.7
Plumbers.....	3.52	6.40	81.8
Riveters.....	.....	6.40	.....
Shipfitters.....	3.52	6.40	81.8
Shipsmiths.....	.....	6.40	.....
Toolmakers.....	4.00	6.88	72.0
Holders on.....	2.40	4.80	100.0
Laborers, common.....	2.00	3.68	84.0

<sup>1</sup>1911 rate.

<sup>2</sup>Heavy fires, \$7.68.

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## BOSTON, MASS.

Occupation.	Rates of pay per day.		Per cent increase.
	1914	1919	
Boilermakers.....	\$3.76	\$6.40	70.2
Coppersmiths.....	3.76	6.88	83.0
Electricians.....	4.80	6.40	33.3
Machinists.....	3.76	6.40	70.2
Molders.....	3.52	6.40	81.8
Pattern makers.....	4.00	6.88	72.0
Pipefitters.....	4.00	6.40	60.0
Plumbers.....	4.40	6.40	45.5
Riveters.....	3.36	6.40	90.4
Shipfitters.....	3.76	6.40	70.2
Shipsmiths.....	3.76	16.40	70.2
Toolmakers.....	4.00	6.88	72.0
Holders on.....	2.40	4.80	100.0
Laborers, common.....	2.24	3.68	64.3

<sup>1</sup>Heavy fires, \$7.68.

## NEWPORT, R. I.

Occupation	Rates of pay per day.		Per cent increase.
	1914	1919	
Boilermakers.....	\$3.44	\$6.40	86.0
Coppersmiths.....		6.88	
Electricians.....		6.40	
Machinists.....	3.60	6.40	77.7
Machinists, Electrical.....	3.52	6.40	81.8
Molders.....	3.68	6.40	73.9
Pattern makers.....	4.08	6.88	68.9
Pipefitters.....	2.56	6.40	150.0
Plumbers.....	3.76	6.40	70.2
Riveters.....		6.40	
Shipfitters.....		6.40	
Shipsmiths.....		16.40	
Toolmakers.....		6.88	
Holders on.....		4.80	
Laborers, common.....	2.16	3.68	70.3

<sup>1</sup>Heavy fires, \$7.68.

## NEW YORK, N. Y.

Occupation.	Rates of pay per day.		Per cent increase.
	1914	1919	
Boilermakers.....	\$3.76	\$6.40	70.2
Coppersmiths.....	4.00	6.88	72.0
Electricians.....	4.48	6.40	42.8
Machinists.....	4.00	6.40	60.0
Machinists, Electrical.....			
Molders.....	3.76	6.40	70.2
Pattern makers.....	4.48	6.88	53.5
Pipefitters.....	3.76	6.40	70.2
Plumbers.....		6.40	
Riveters.....	3.28	6.40	95.1
Shipfitters.....	3.76	6.40	70.2
Shipsmiths.....	4.00	16.40	60.0
Toolmakers.....	4.00	6.88	72.0
Holders on.....	2.64	4.88	81.8
Laborers, common.....	2.00	3.68	84.0

<sup>1</sup>1911 rates.<sup>2</sup>Heavy fires, \$7.68.



## WAGES IN VARIOUS INDUSTRIES.

## PHILADELPHIA, PA.

Occupation.	Rates of pay per day.		Per cent increase.
	1914	1919	
Boilermakers.....	<sup>1</sup> \$3.44	\$6.40	86.0
Coppersmiths.....	3.68	6.88	87.0
Electricians.....		6.40	
Machinists.....	3.76	6.40	70.2
Molders.....		6.40	
Pattern makers.....	3.76	6.88	83.0
Pipefitters.....	3.44	6.40	86.0
Plumbers.....	3.52	6.40	81.8
Riveters.....	<sup>1</sup> 3.04	6.40	110.5
Shipfitters.....	3.52	6.40	81.8
Shipsmiths.....	3.52	<sup>2</sup> 6.40	81.8
Toolmakers.....		6.88	
Holders on.....	2.64	4.80	81.8
Laborers, common.....	2.00	3.68	84.0

<sup>1</sup>1911 rates.<sup>2</sup>Heavy fires, \$7.68.

## WASHINGTON, D. C.

Occupation.	Rates of pay per day.		Per cent increase.
	1914	1919	
Boilermakers.....	\$3.72	\$6.40	72.0
Coppersmiths.....	4.00	6.88	72.0
Electricians.....		6.40	
Machinists.....	4.08	6.40	56.8
Machinists, Electrical.....	<sup>1</sup> 3.76	6.40	70.2
Molders.....	3.92	6.40	63.3
Pattern makers.....	4.32	6.88	59.3
Pipefitters.....	3.92	6.40	63.3
Plumbers.....	4.16	6.40	53.8
Riveters.....		6.40	
Shipfitters.....		6.40	
Shipsmiths.....		<sup>2</sup> 6.40	
Toolmakers.....		6.88	
Holders on.....		4.80	
Laborers, common.....	2.16	3.68	70.4

<sup>1</sup>1911 rates.<sup>2</sup>Heavy fires, \$7.68.

## NORFOLK, VA.

Occupation.	Rates of pay per day.		Per cent increase.
	1914	1919	
Boilermakers.....	<sup>1</sup> \$3.52	\$6.40	81.8
Coppersmiths.....	3.68	6.88	87.0
Electricians.....	3.50	6.40	82.9
Machinists.....	3.52	6.40	81.8
Molders.....		6.40	
Pattern makers.....	3.84	6.88	79.2
Pipefitters.....	3.76	6.40	70.2
Plumbers.....	4.24	6.40	50.9
Riveters.....		6.40	
Shipfitters.....	3.52	6.40	81.8
Shipsmiths.....	<sup>1</sup> 3.28	<sup>2</sup> 6.40	95.1
Toolmakers.....	3.76	6.88	83.0
Holders on.....		4.80	
Laborers, common.....	1.76	3.68	109.1

<sup>1</sup>1911 rates.<sup>2</sup>Heavy fires, \$7.68.



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## CHARLESTON, S. C.

Occupation.	Rates of pay per day.		Per cent increase.
	1914	1919	
Boilermakers.....	\$3.60	\$6.40	77.8
Coppersmiths.....	3.84	6.88	79.2
Electricians.....		6.40	
Machinists.....	3.60	6.40	77.8
Machinists, Electrical.....	4.00	6.40	60.0
Molders.....	3.60	6.40	77.8
Pattern makers.....	3.76	6.88	83.0
Pipefitters.....	2.80	6.40	128.6
Plumbers.....	4.00	6.40	60.0
Riveters.....	3.44	6.40	86.0
Shipfitters.....	3.52	6.40	81.8
Shipsmiths.....	3.52	6.40	81.8
Toolmakers.....	3.76	6.88	83.0
Holders on.....	2.56	4.80	87.1
Laborers, common.....	1.52	2.88	89.5

<sup>1</sup>1911 rates.<sup>2</sup>Heavy fires, \$7.68.

## PENSACOLA, FLA.

Occupation.	Rates of pay per day.		Per cent increase.
	1911	1919	
Boilermakers.....	\$3.68	\$6.40	73.9
Coppersmiths.....	4.00	6.88	72.0
Electricians.....		6.40	
Machinists.....	3.76	6.40	70.2
Machinists, Electrical.....	3.76	6.40	70.2
Molders.....		6.40	
Pattern makers.....	4.00	6.88	72.0
Pipefitters.....	3.20	6.40	100.0
Plumbers.....	3.28	6.40	95.1
Riveters.....	3.20	6.40	100.0
Shipfitters.....	3.68	6.40	73.9
Shipsmiths.....	3.68	6.40	73.9
Toolmakers.....	3.76	6.88	83.0
Holders on.....	2.00	4.80	140.0
Laborers, common.....	1.68	2.88	71.4

<sup>1</sup>Heavy fires, \$7.68.

## NEW ORLEANS, LA.

Occupation.	Rates of pay per day.		Per cent increase.
	1914	1919	
Boilermakers.....	\$3.52	\$6.40	81.8
Coppersmiths.....	3.52	6.88	95.5
Electricians.....		6.40	
Machinists.....		6.40	
Machinists, Electrical.....	4.00		
Molders.....	3.52	6.40	81.8
Pattern makers.....	3.76	6.88	83.0
Pipefitters.....	3.52	6.40	81.8
Plumbers.....	4.00	6.40	60.0
Riveters.....	3.52	6.40	81.8
Shipfitters.....	3.76	6.40	70.2
Shipsmiths.....	3.76	6.40	70.2
Toolmakers.....	4.00	6.88	72.0
Holders on.....	2.00	4.80	140.0
Laborers, common.....	2.00	2.88	44.0

<sup>1</sup>Heavy fires, \$7.68.

## WAGES IN VARIOUS INDUSTRIES.

## PUGET SOUND, WASH.

Occupation.	Rates of pay per day.		Per cent increase.
	1914	1919	
Boilermakers.....	\$4.00	\$6.40	60.0
Coppersmiths.....	4.24	6.88	62.2
Electricians.....	4.24	6.40	50.9
Machinists.....	4.00	6.40	60.0
Molders.....	4.00	6.40	60.0
Pattern makers.....	4.24	7.52	75.7
Pipefitters.....	3.76	6.40	70.2
Plumbers.....	4.16	6.40	53.8
Riveters.....	3.84	6.40	66.6
Shipfitters.....	4.00	6.40	60.0
Shipsmiths.....	.....	16.40	.....
Toolmakers.....	4.24	6.88	62.2
Holders on.....	2.72	5.12	88.1
Laborers, common.....	2.40	4.16	73.3

Heavy fires, \$7.68.

## MARE ISLAND, CAL.

Occupation.	Rates of pay per day.		Per cent increase.
	1914	1919	
Boilermakers.....	\$4.24	\$6.40	50.9
Coppersmiths.....	4.40	6.88	56.3
Electricians.....	3.20	6.40	100.0
Machinists.....	4.24	6.40	50.9
Machinists, Electrical.....	4.32	6.40	48.1
Molders.....	.....	6.40	.....
Pattern makers.....	5.04	7.52	49.2
Pipefitters.....	4.16	6.40	53.8
Plumbers.....	4.72	6.40	35.6
Riveters.....	4.08	6.40	56.9
Shipfitters.....	4.24	6.40	50.9
Shipsmiths.....	4.24	.....	.....
Toolmakers.....	4.48	6.88	53.5
Holders on.....	3.04	5.12	68.3
Laborers, common.....	2.40	4.16	73.3

## CHAPTER 17.

## PRINTERS.

The trend of wages of compositors and linotype operators in both newspaper, and book and job work, is shown in the following table in detail for several representative cities in various parts of the country. The data here presented were obtained from the computations of the United States Bureau of Labor Statistics, supplemented, for 1919, by the wage scale advances as published in the Journals and Bulletins for the Typographical Union. In cases where no advances have been reported during the year, the scale that prevailed in 1918 has been given for 1919. Rates of pay for day work only are presented. On newspaper work, for both compositors and operators, the weekly scale for night work averages between three and five dollars per week more than that for day work.

WEEKLY EARNINGS, FULL TIME, OF COMPOSITORS AND LINOTYPE OPERATORS  
IN VARIOUS CITIES.  
1914 and 1919.

## LINOTYPE OPERATORS.

	Day, Newspapers.			Book and Job.		
	1914	1919	Per cent increase.	1914	1919	Per cent increase.
Boston, Mass.....	\$26.46	\$28.56	7.9	\$23.00	\$35.00	52.2
New York, N. Y.....	30.00	43.50	45.0	26.00	39.00	50.0
Philadelphia, Pa.....	22.00	25.50	15.9	22.00	31.00	40.9
Pittsburgh, Pa.....	27.00	42.00	55.5	24.00	27.00	12.5
Atlanta, Ga.....				22.50	22.50	
Baltimore, Md.....	24.00	35.00	45.8	22.50	24.00	6.7
Cincinnati, Ohio.....	26.00	42.00	61.5	25.00	26.00	4.0
Chicago, Ill.....		42.00			41.00	
Cleveland, Ohio.....	25.80	38.10	47.7	25.80	38.00	47.3
Indianapolis, Ind.....	24.00	33.00	37.5	24.00	30.00	25.0
Kansas City, Mo.....	28.50	28.50		26.50	30.00	13.2
New Orleans, La.....				24.00	24.00	
Birmingham, Ala.....	22.26					
Denver, Colo.....	28.50	39.00	36.8	26.00	31.50	21.2
Los Angeles, Cal.....	29.00	30.00	3.4	29.00	30.00	3.4
San Francisco, Cal.....	29.00	31.00	6.9	29.00	33.00	13.8
Seattle, Wash.....	31.50	42.00	33.3			
Richmond, Va.....	20.00				26.00	
Portland, Ore.....				31.50		

## WAGES IN VARIOUS INDUSTRIES.

## COMPOSITORS.

	Day, Newspapers.			Book and Job.		
	1914	1919	Per cent increase.	1914	1919	Per cent increase
Boston, Mass.....	\$26.46	\$34.86	31.7	\$21.00	\$33.50	59.5
New York, N. Y.....	30.00	43.50	45.0	24.00	39.00	62.5
Philadelphia, Pa.....	20.00	25.50	27.5	20.00	29.00	45.0
Pittsburgh, Pa.....	27.00	42.00	55.6	20.00	23.00	15.0
Atlanta, Ga.....	21.00	24.00	14.3	18.00	21.00	16.7
Baltimore, Md.....	24.00	35.00	45.8	18.00	21.00	16.7
Cincinnati, Ohio.....		42.00				
Chicago, Ill.....	27.90	42.00	50.5	24.00	41.00	70.8
Cleveland, Ohio.....	25.80	38.10	47.7	20.00	32.00	60.0
Indianapolis, Ind.....	24.00	33.00	37.5	21.00	30.00	43.0
Kansas City, Mo.....	28.50	33.00	15.8	20.00	24.00	20.0
New Orleans, La.....	23.80	24.23	1.8	21.00	21.00	
Birmingham, Ala.....		28.35				
Denver, Colo.....	28.50	39.00	36.8	26.00	31.50	21.2
Los Angeles, Cal.....	29.00	34.00	17.2	24.00	25.00	4.1
San Francisco, Cal.....	29.00	34.00	17.2	24.00	28.00	16.7
Seattle, Wash.....	31.50	42.00	33.3	25.50	28.50	11.8
Richmond, Va.....					23.00	
Portland, Ore.....		46.00				

## Chapter 18.

## RAILROAD EMPLOYEES.

The following table shows the average hourly or daily earnings of 68 occupations or occupational groups of employees of Class I Railroads in the United States for the year ending December 31, 1915, and for the month of January 1919, as reproduced from the Report of the Railroad Wage Commission of 1918 and from a statement prepared by the U. S. Railroad Administration under date of April 8, 1919. The data for January 1919 represent, in general, conditions still in force, except in the case of the shopmen whose rates were increased by a recent order. See Chapter 14 for the effect of this order on the wages of certain railroad shop trades.

AVERAGE EARNINGS OF EMPLOYEES OF CLASS I RAILROADS IN THE UNITED STATES, YEAR ENDING DECEMBER 31, 1915 (FROM REPORT OF THE RAILROAD WAGE COMMISSION) AND FOR THE MONTH OF JANUARY, 1919 (FROM STATEMENT PREPARED BY THE RAILROAD ADMINISTRATION UNDER DATE OF APRIL 8, 1919)

OCCUPATION	Earnings per Hour Except those marked by star * which are per day		Per Cent Increase January 1919 over year 1915
	Year ending Dec. 31, 1915	Month of January 1919	
1. General officers, \$3000 p. a. and upwards.....	\$2.52	\$16.07 *	
2. General officers, below \$3,000 pr annum.....	.698	6.74 *	
3. Division officers, \$3000 p. a. and upwards.....	1.20	10.94 *	
4. Division officers, below \$3,000 per annum.....	.523	7.10 *	
5. Clerks, \$900 p. a. and upwards (except No. 37).....	.416	.51	23
6. Clerks below \$900 p. a. (except No. 37).....	.224	.31	38
7. Messengers and attendants.....	.149	2.53 *	
8. Assistant engineers and draftsmen.....	.404	5.12 *	
9. M. W. & S. foremen (excluding Nos. 10 and 28).....	.329	5.32 *	
10. Section foremen.....	.233	3.96 *	
11. General foremen, M. E. Department.....	.429	8.31 *	
12. Gang and other foremen, M. E. Department.....	.347	6.77 *	
13. Machinists.....	.387	.719	86
14. Boilermakers.....	.386	.713	85
15. Blacksmiths.....	.373	.707	90
16. Masons and bricklayers.....	.279	.627	125
17. Structural ironworkers.....	.321	.753	135
18. Carpenters.....	.276	.579	110
19. Painters and upholsterers.....	.297	.613	106
20. Electricians.....	.285	5.38 *	
21. Air-brake men.....	.266	.604	127
22. Car inspectors.....	.232	.597	157
23. Car repairers.....	.265	.568	114
24. Other skilled laborers.....	.283	.624	120
25. Mechanics' helpers and apprentices.....	.226	.471	108
26. Section men.....	.150	.372	148
27. Other unskilled laborers.....	.182	.413	127

\* Per Day.

AVERAGE EARNINGS OF EMPLOYEES OF CLASS I RAILROADS IN THE UNITED STATES, YEAR ENDING DECEMBER 31, 1915 (FROM REPORT OF THE RAILROAD WAGE COMMISSION) AND FOR THE MONTH OF JANUARY, 1919 (FROM STATEMENT PREPARED BY THE RAILROAD ADMINISTRATION UNDER DATE OF APRIL 8, 1919)  
—Continued.

OCCUPATION.	Earnings per Hour Except those marked by star * which are per day		Per Cent Increase January 1919 over year 1915
	Year ending Dec. 31, 1915	Month of January 1919	
25. Foreman of const. gangs and work trains.....	.275	.539	96
29. Other men in const. gangs and work trains.....	.168	.397	136
30. Traveling agents and solicitors.....	.567	6.35 *	
31. Employees in outside agencies.....	.387	4.59 *	
32. Other traffic employees.....	.423	6.32 *	
33. Train dispatchers and directors.....	.528	.915	73
34. Telegraphers, telephoners, and block operators.....	.264	.541	105
35. Telegraphers and telephoners operating interlockers.....	.287	.563	96
36. Levermen (non-telegraphers).....	.213	.496	133
37. Telegraphers - clerks.....	.241	.531	120
38. Agent telegraphers.....	.224	.547	144
39. Station agents (non-telegraphers).....	.253	4.38 *	
40. Station masters and assistants.....	.306	5.20 *	
41. Station service employees (except Nos. 5, 6, 37, 38, 39, 40, 66)...	.187	.408	118
42. Yardmasters.....	.400	7.67 *	
43. Yardmaster's assistants (not yard clerks).....	.368	6.51 *	
44. Yard engineers and motormen.....	.425	.688	62
45. Yard firemen and helpers.....	.261	.485	86
46. Yard conductors (or foremen).....	.386	.636	65
47. Yard brakemen (switchmen or helpers).....	.349	.601	72
48. Yard switch tenders.....	.186	.347	87
49. Other yard employees.....	.167	.374	124
50. Hostlers.....	.332	.506	52
51. Enginehouse-men.....	.176	.423	140
52. Road freight engineers and motormen.....	.598	.825	38
53. Road freight firemen and helpers.....	.382	.616	61
54. Road freight conductors.....	.498	.692	39
55. Road freight brakemen and flagmen.....	.336	.543	62
56. Road passenger engineers and motormen.....	.824	.987	20
57. Road passenger firemen and helpers.....	.506	.694	37
58. Road passenger conductors.....	.669	.833	25
59. Road passenger baggagemen.....	.364	.576	58
60. Road passenger brakemen and flagmen.....	.381	.580	52
61. Other road train employees.....	.291	.470	62
62. Crossing flagmen and gatemen.....	.115	2.65 *	
63. Drawbridge operators.....	.168	3.04 *	
64. Floating equipment employees.....	.214	.460	115
65. Express service employees.....	.176	.136	d 22
66. Policemen and watchmen.....	.191	3.45 *	
67. Other transportation employees.....	.203	3.38 *	
68. All other employees.....	.194	2.74 *	

\* Per day  
d Decrease.



## CHAPTER 19.

## SEAMEN.

The monthly wages of various classes of seamen engaged in the Atlantic and Gulf Coast trade were compiled in a report of the Director of Marine and Dock Industrial Division, United States Shipping Board, recently issued. The following table summarizes the data therein presented. The range of rates between high and low are given as it was impracticable to draw proper averages. In considering this table, it is to be remembered that the wages of seamen are in addition to board and lodging.

RATES OF WAGES PER MONTH OF DECK OFFICERS AND CREW, AND OF LICENSED ENGINEERS AND OF FIREMEN, ATLANTIC AND GULF COAST.  
1914 and 1919.

(Compiled from association and union wage scales and awards of U. S. Shipping Board, as set forth in Report of the Director of Marine and Dock Industrial Division, U. S. Shipping Board, December 31, 1918, and subsequent awards, July, 1919.)

Occupation.	1914		1919 (July).		Per cent increase.	
	Low.	High.	Low.	High.	Low.	High.
<b>DECK OFFICERS AND CREW.</b>						
Master (captain).....	\$400.00	\$400.00	\$412.50	\$412.50	31.25	31.25
First mate.....	150.00	150.00	241.25	241.25	60.83	60.83
Second mate.....	140.00	140.00	212.50	212.50	51.79	51.79
Third mate.....	130.00	130.00	188.75	188.75	45.19	45.19
Fourth mate.....	80.00	80.00	165.00	165.00	106.25	106.25
Able seaman.....	30.00	30.00	85.00	85.00	163.33	163.33
<b>LICENSED ENGINEERS AND FIREMEN.</b>						
Chief engineer.....	200.00	200.00	387.50	387.50	93.75	93.75
First assistant engineer.....	126.00	126.00	241.25	241.25	93.00	93.00
Second assistant engineer....	115.00	115.00	212.50	212.50	84.78	84.78
Third assistant engineer.....	115.00	115.00	188.75	188.75	64.13	64.13
Junior engineers.....	80.00	80.00			68.75	68.75
Firemen.....						

## CHAPTER 20.

## SHIPYARDS.

The award of the Shipbuilding Labor Adjustment Board in October 1918 provided for two general scales of shipyard wages—one for the Atlantic Coast and one for the Pacific Coast. These wage scales are still in effect in September 1919. It is very difficult to obtain comparable data for shipyard workers in 1914 and in 1919.

The first of the following two tables presents the wage rates for the San Francisco shipyards in 1914 and for the Pacific Coast District in 1919, for those occupations for which comparable data were obtainable. In the same way the second table presents similar information for the Delaware River shipyards in 1914 and for the Atlantic Coast District in 1919, for those occupations for which comparable data could be obtained.

The basic 8-hour day is general in the shipyards.

## PACIFIC COAST DISTRICT.

MINIMUM HOURLY RATES OF PAY (IN CENTS), PACIFIC COAST DISTRICT, IN 1919,  
WITH COMPARISON OVER SAN FRANCISCO DISTRICT IN 1914.

Occupation.	San Francisco District 1914. <sup>1</sup>	Whole Pacific Coast District. 1918. <sup>2</sup>	Per cent increase.
Acetylene welders.....	50.0	80.0	60.0
Blacksmiths.....	50.0	80.0	60.0
Blacksmiths.....	37.5	58.0	54.6
Boilermakers.....	50.0	80.0	60.0
Chippers and calkers.....	50.0	80.0	60.0
Drillers.....	37.5	68.0	54.6
Drillers.....	34.4	64.0	90.0
Holders-on.....	37.5	64.0	71.0
Laborers.....	30.0	52.0	73.0
Machinists.....	50.0	80.0	60.0
Molders.....	50.0	80.0	60.0
Patternmakers.....	62.5	94.0	50.4
Pape fitters.....	43.8	80.0	82.6
Punch and shear men.....	37.5	68.0	81.3
Reamers.....	37.5	68.0	81.3
Riveters.....	45.0	80.0	77.8
Sheet metal workers.....	50.0	86.0	72.0
Ship fitters.....	50.0	80.0	60.0

<sup>1</sup>No change in rates of San Francisco District from 1907 to 1914.

<sup>2</sup>These are the rates of pay as of October 1, 1918, and still in effect.

## ATLANTIC COAST DISTRICT

MINIMUM HOURLY RATES OF PAY (IN CENTS), ATLANTIC COAST DISTRICT, IN 1919  
WITH COMPARISON OVER DELAWARE RIVER DISTRICT IN 1914.

Occupation.	1914	1919. <sup>1</sup>	Per cent increase.
Loftsmen, 1st class.....	39.0	90.0	130.8
Loftsmen, 2nd class.....	30.0	74.0	122.2
Painters.....	33.3	86.0	212.7
Patternmakers.....	27.5	62.0	175.6
Cranemen.....	22.5	86.0	191.5
Rivet testers.....	29.5	66.0	164.0
Stage builders.....	25.0	80.0	300.0
Hand riveters.....	20.0	60.0	300.0
Holdere-on.....	15.0	50.0	400.0
Rivet heaters.....	10.0	25.0	212.5
Passer boys <sup>2</sup> .....	8.0	80.0	142.4
Ship carpenters.....	33.0	64.0	190.9
Punchers.....	22.0	64.0	156.0
Planers and scrapers.....	25.0	36.0	190.9
Drillers and countersinkers.....	22.0	72.0	118.1
Pressmen.....	33.0	( <sup>4</sup> )	166.7
Lay-out.....	46.0	76.0	153.3
Sheet metal workers.....	30.0	80.0	166.7
Acetylene burners and welders.....	30.0	80.0	166.7
Anglesmiths.....	30.0	80.0	166.7
Blacksmiths.....	22.0	80.0	263.6
Boilermakers.....	18.5	80.0	332.4
Drillers.....	18.5	68.0	267.6
Flange turners.....	25.0	86.0	244.0
Bolters.....	15.0	58.0	286.7
Linemen.....	20.0	64.0	220.0
Tank testers.....	25.0	86.0	244.0
Hand chippers.....	22.5	80.0	255.6
Coppersmiths.....	36.0	86.0	138.9
Plumbers.....	33.0	80.0	142.4
Drillers (boiler shop).....	17.5	68.0	288.5
Reamers.....	15.0	58.0	286.6
Electricians.....	30.0	80.0	166.7
Machinists.....	33.0	80.0	142.4
Ship fitters.....	30.0	80.0	166.7
Molders.....	30.0	80.0	166.7

<sup>1</sup>These are the rates of pay as for October 1, 1918, and still in effect.

<sup>2</sup>Newport News.

<sup>3</sup>Drillers (pneumatic), 68 cents.

<sup>4</sup>\$0.05 in addition to journeymen's hourly rate.

<sup>5</sup>Anglesmiths, heavy fires, \$0.96.

<sup>6</sup>Blacksmiths, heavy fires, \$0.96.

<sup>7</sup>Drillers and countersinkers, \$0.64 (ship shed department).

## CHAPTER 21.

## STREET RAILWAY EMPLOYEES.

The wage rates of motormen and conductors given in this chapter are maximum rates. Most street car systems employ a wage system under which wages are increased automatically from time to time according to length of service. At present the great majority of the larger systems fix the limit necessary to obtain the maximum at one year.

The following table gives the maximum hourly rates of motormen and conductors, for 1914 and 1919, in representative cities. The information was compiled from trade and labor publications and is believed to be closely accurate, except that the data for 1919 are not all for the same month. In most cases the rates shown are those which were in effect in September 1919. Full information was not available regarding hours of labor of motormen and conductors. In a few cities—notably Boston and Chicago—these employees are now on an 8-hour basis, but in most places the hours of labor are more than eight and are very complicated, owing to the adjustment of hours to traffic conditions.

MAXIMUM HOURLY RATES OF WAGES OF MOTORMEN AND CONDUCTORS ON,  
STREET RAILWAYS IN VARIOUS CITIES.

1911, 1914 and 1919.

(All entries for 1919 are for January, except as otherwise specified.)

Cities.	1911	1914	1919	Per cent increase 1919 over 1914.
<b>NORTH ATLANTIC.</b>				
Albany, N. Y.	27.0	28.0	40.0	42.9
Boston, Mass.				
Surface lines.	28.9	31.3	60.0	91.7
Elevated lines.				
Motormen.	32.0	33.0	62.0	87.8
Conductors.	27.0	28.0	56.5	101.8
Bridgeport, Conn.	27.5	28.5	50.0	75.4
Brockton, Mass.	27.5	28.0	51.0	82.1
Buffalo, N. Y.	28.0	30.0	48.0	60.0
Butler, Pa.	24.0	25.0	54.0	116.0
Chelsea, Mass.	27.5	28.0	51.0	82.1
Easton, Pa.	24.0	27.0	55.0	103.7
Erie, Pa.	25.0	29.0	45.0	55.2
Fall River, Mass.	27.5	28.0	51.0	82.1
Framingham, Mass.	27.5	29.0	47.0	62.7
Gloucester, Mass.	27.5	28.0	51.0	82.1
Hartford, Conn.	27.5	28.5	50.0	75.4
Haverhill, Mass.	27.5	28.0	51.0	82.1
Lawrence, Mass.	27.5	28.0	51.0	82.1
Lowell, Mass.	27.5	28.0	51.0	82.1
Lynn, Mass.	27.5	28.0	51.0	82.1
Manchester, N. H.	25.0	26.0	55.0	111.5
Meriden, Conn.	27.5	28.5	50.0	75.4
Middletown, Conn.	27.5	28.5	50.0	75.4
Montpelier, Vt.	22.0	25.0	35.0	40.0
Nashua, N. H.	27.0	28.0	35.0	25.0
Newburgh, N. Y.	21.0	23.0	35.0	52.2
New Haven, Conn.	27.5	27.5	50.0	81.8
New York, N. Y.				
Brooklyn Rapid Transit.				
Surface lines.	25.0	28.0	62.0	121.4
Elevated.				
Motormen.	35.0	37.5	79.0	110.7
Conductors.	24.0	25.0	57.0	128.0
New York Railway Co.				
All lines except horse and storage battery.				
Motormen.	\$2.70	\$2.85	\$4.96	74.0
Conductors.	2.60	2.70	4.96	83.7
Interborough Rapid Transit.				
Elevated lines.				
Motormen.	3.50	3.75	6.32	68.5
Conductors.	2.50	2.60	4.56	75.4
Subway lines.				
Motormen.	3.50	3.75	6.32	68.5
Conductors.	2.50	2.60	4.56	75.4
Pittsburgh, Pa.	30.0c	30.0c	54.0c	80.0
Pottsville, Pa.	25.0	27.0	45.0	66.7
Providence, R. I.	27.0	28.5	56.0	96.5
Quincy, Mass.	27.5	28.0	51.0	82.1
Rochester, N. Y.	26.5	28.0	51.0	82.1
Salem, Mass.	27.5	28.0	51.0	82.1
Schenectady, N. Y.	27.0	28.5	45.0	57.9
Scranton, Pa.	26.5	26.5	49.0	84.9
Sharon, Pa.	27.5	30.5	47.5	55.7
Springfield, Mass.	\$2.85	\$2.85	\$3.87	35.8
Syracuse, N. Y.	26.5c	28.5c	45.0c	57.9
Taunton, Mass.	27.5	28.0	51.0	82.1
Trenton, N. J.	24.0	26.0	42.0	61.5
Troy, N. Y.	27.0	28.0	40.0	42.9
Utica, N. Y.	26.5	28.5	45.0	57.9
Waterbury, Conn.	27.5	28.5	50.0	75.4
Westerly, R. I.	20.0	22.5	42.5	88.9
Woburn, Mass.	27.5	28.0	51.0	82.1
Worcester, Mass.	28.5	28.5	43.0	50.9
<b>SOUTH ATLANTIC.</b>				
Atlanta, Ga.	23.0	25.0	40.0	60.0
Augusta, Ga.	22.0	22.0	29.0	31.8
Charleston, S. C.	21.0	21.0	40.0	90.5
Columbia, S. C.	22.0	22.0	44.5	102.3
Asheville, N. C.	21.5	25.0	44.0	76.0
Birmingham, Ala.	25.0	26.0	50.0	92.3
Covington, Ky.	22.0	27.0	48.0	77.8
Galveston, Texas.	25.0	25.0	42.0	68.0
Lexington, Ky.				
City lines.	20.0	20.0	32.0	60.0
Interurban.	22.0	22.0	35.0	59.1
Little Rock, Ark.	25.0	25.0	35.0	40.0
McAllister, Okla.	26.0	26.0	37.0	42.3
New Orleans, La.	23.25	24.0	42.0	75.0
San Antonio, Texas.	25.0	26.0	42.0	61.5
Shreveport, La.	26.0	27.0	37.0	37.0



MAXIMUM HOURLY RATES OF WAGES OF MOTORMEN AND CONDUCTORS ON  
STREET RAILWAYS IN VARIOUS CITIES, 1911, 1914 AND 1919 (Continued).

Cities.	1911	1914	1919	Per cent increase 1919 over 1914.
<b>NORTH CENTRAL.</b>				
Alton, Ill.				
Double track.....	26.5	26.5	51.0	92.5
Single track.....	27.5	27.5	51.0	85.5
Akron, Ohio.				
Interurban.....	27.0	31.0	49.0	58.1
City.....	24.0	29.0	48.0	65.5
Battle Creek, Mich.....	25.0	26.0	42.0	61.5
Burlington, Iowa.....	20.0	24.0	42.0	75.0
Chicago, Ill.				
Motormen on all except northwestern division.	32.0	34.0	67.0	97.1
Conductors.....	25.5	27.0	62.0	129.6
Surface lines.....	30.0	32.0	65.0	103.1
Cincinnati, Ohio.....	23.0	27.0	50.0	85.2
Cleveland, Ohio.....	30.0	30.0	60.0	100.0
Columbus, Ohio.				
Motormen.....		27.0	47.0	74.1
Conductors.....	25.0	27.0	45.0	66.7
Davenport, Iowa.....	26.0	28.0	60.0	114.2
Des Moines, Iowa.....	28.0	29.0	60.0	106.9
Detroit, Mich.....	28.0	32.0	60.0	87.5
Dubuque, Iowa.....	23.0	25.0	42.0	68.0
East Liverpool, Ohio.....	29.0	30.0	50.0	66.7
Galesburg, Ill.....	22.0	24.0	42.0	75.0
Gary, Ind.....	30.0	30.0	48.0	60.0
Indianapolis, Ind.....	24.0	27.0	39.0	44.4
Jackson, Mich.....	25.0	26.0	42.0	61.5
Joliet, Ill.				
City lines.....	25.0	26.0	54.0	107.7
Interurban lines.....	26.0	27.0	60.0	122.2
Kalamazoo, Mich.....	25.0	26.0	42.0	61.5
La Crosse, Wis.....	23.0	25.0	40.0	60.0
Lansing, Mich.....	25.0	26.0	42.0	61.5
Madison, Wis.....	24.0	24.0	42.0	75.0
Mansfield, Ohio.....	23.0	24.0	45.0	87.5
Niles, Ohio.....	28.0	31.0	48.0	54.8
Omaha, Nebr.....	28.0	29.0	45.0	55.2
Portsmouth, Ohio.....	22.0	25.0	42.0	68.0
Rock Island, Ill.....	26.0	28.0	60.0	114.3
Steubenville, Ohio.....	25.0	29.0	50.0	72.4
Toledo, Ohio.....	25.0	27.0	46.0	70.4
Wheeling, W. Va.....	27.0	29.0	50.0	72.4
Youngstown, Ohio.....	28.0	31.0	48.0	54.8
<b>WESTERN.</b>				
Butte, Mont.....	45.0	45.0	65.0	44.4
Colorado Springs, Colo.....	30.0	30.0	37.0	23.3
Oakland, Cal.....	40.0	40.0	42.0	5.0
Ogden, Utah.....	27.0	30.0	45.0	50.0
Portland, Oregon.....	30.0	31.0	50.0	61.3
Sacramento, Cal.....	32.0	32.0	46.0	43.8
Salt Lake City, Utah.....	31.0	33.0	47.0	42.4
San Francisco, Cal. (Municipal Railway).....	37.5	37.5	56.3	50.0
Seattle, Wash. (Benton & Southern Railway).....	30.0	32.0	61.1	90.9
Stockton, Cal.....	27.0	30.0	45.0	50.0

<sup>1</sup>Year 1912.

<sup>2</sup>Year 1913.

<sup>3</sup>Per day; hours not reported.

<sup>4</sup>Per day of 10 hours.

<sup>5</sup>Per day of 8 hours.

<sup>6</sup>August, 1919.



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**PART II.**  
**EARNINGS.**

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## CHAPTER 22.

## EARNINGS IN VARIOUS MANUFACTURING INDUSTRIES OF THE UNITED STATES.

For a period of several years the United States Bureau of Labor Statistics has collected and published monthly, in its Monthly Labor Review, statistics as to the number of persons employed and total amount of pay roll in certain important manufacturing industries. The number and size of the establishments covered are sufficient to make the results obtained very representative.

The number of persons employed means, in each case, the number of persons on the payroll during the period reported upon. It is thus not a true measure of actual employment and the amount of the payroll divided by the number of persons on the payroll does not give the true average earnings per individual. In general, average earnings shown by such division will be somewhat smaller than the true earnings owing to the inclusion of persons who did not work the full payroll period. In spite of this defect, however, the averages thus obtained are very useful, particularly as indicating the comparative earnings in different industries and the trend of earnings within the same industry.

The following table gives for each of the industries covered by the Bureaus' report the per capita earnings per week in January 1915, and in July 1919. In a few instances the data were not available as early as January in 1915. The exceptions are noted in the table.

In considering the figures of the table it is to be borne in mind that changes in earnings from year to year may be due to changes in hours of labor or overtime work, and the figures are thus in no way indicative of wage rates.

Another point to be noted is that, while the payroll period in most cases was one week, in a few cases it was two weeks and in the case of two industries it was a half month. In reducing the figures for these industries to a weekly basis, the average earnings for two weeks payroll have been divided by two and those for a half month payroll period have been divided by the number of days in the particular month and then multiplied by seven. This adjustment, in itself, introduces another element of error which prevents the averages from being any more than roughly indicative of actual earnings.

## WAGES IN VARIOUS INDUSTRIES.

PER CAPITA WEEKLY EARNINGS IN VARIOUS INDUSTRIES  
1915 and 1919.

(Compiled from Monthly Labor Reviews of U. S. Bureau of Labor Statistics.)

Industry.	Per capita earnings per week.		Per cent Increase.	Number on payroll.		Amount of payroll.	
	1915 Jan.	1919 July.		1915 Jan.	1919 July.	1915 Jan.	1919 July.
Boots and shoes.....	\$12.12	\$20.91	73	56,929	47,008	\$690,080	\$982,778
Cotton finishing.....	10.54	22.27	111	12,597	14,801	132,768	329,566
Cotton manufacturing.....	8.31	18.04	117	59,694	56,885	496,349	1,026,176
Hosiery and underwear.....	7.75	16.39	111	27,467	28,242	212,736	462,837
Iron and steel.....	11.76	26.94	129	100,792	169,335	2,625,997	10,102,974
Men's ready-made clothing.....	11.92	24.43	105	19,053	16,861	227,085	411,908
Silk manufacturing.....	8.99	17.56	95	17,033	15,544	306,260	545,795
Woolen manufacturing.....	9.70	21.02	117	17,057	45,790	165,421	962,529
Car building and repairing.....	13.20	23.69	79	32,775	49,737	865,315	2,609,108
Cigar manufacturing.....	9.33	17.13	84	24,086	14,022	224,736	240,192
Automobile manufacturing.....	17.23	27.74	61	52,171	99,303	898,866	2,754,297
Leather manufacturing.....	11.76	23.08	96	14,946	17,175	175,808	396,421
Paper making.....	13.20	22.45	70	14,505	24,481	191,456	549,586

<sup>1</sup>February.<sup>2</sup>March.<sup>3</sup>November.

## CHAPTER 23.

## EARNINGS IN MANUFACTURING INDUSTRIES OF NEW YORK STATE.

The average weekly earnings of employees in the manufacturing industries of New York state are published in the Labor Market Bulletin of the Bureau of Statistics and Information of the New York Industrial Commission. These figures are based upon returns from a large number of employers giving total employment and total payroll in their establishments. As indicating the comprehensive character of the data obtained the Bulletin states that returns were made by 1,648 representative firms with over 550,000 employees, or more than one-third of the factory workers in the State, and a weekly payroll of over \$12,000,000.

In considering these data it is important to bear in mind that they deal solely with earnings, and not with rates of pay, and that the earnings of an employee are, of course, dependent upon the amount of time worked.

The information regarding average weekly earnings is shown by months from June 1914 to June 1919, inclusive in the first of the two following tables, taken from the June 1919 issue of the Bulletin. The second table shows the average weekly earnings by industries for June 1914 and June 1919.

## AVERAGE WEEKLY EARNINGS IN REPRESENTATIVE NEW YORK STATE FACTORIES.

(Includes all employees in both office and shop.)

(From The Labor Market Bulletin of the New York State Industrial Commission, June, 1919.)

Month.	1914	1915	1916	1917	1918	1919
	Week including 15th of month.	Week including 15th of month.	Week including 15th of month.	Week including 15th of month.	Week including 15th of month.	Week including 15th of month.
January.....		\$12.44	\$13.53	\$15.28	\$16.81	\$23.03
February.....		12.41	13.77	15.31	17.66	22.07
March.....		12.65	13.96	15.79	18.71	22.20
April.....		12.54	14.15	15.50	19.25	22.11
May.....		12.74	14.24	16.08	19.91	22.23
June.....	\$12.70	12.81	14.41	16.20	20.44	22.51
July.....	12.54	12.66	14.11	16.17	20.78	.....
August.....	12.53	12.89	14.44	16.44	21.23	.....
September.....	12.48	12.86	14.87	16.97	22.31	.....
October.....	12.26	13.30	14.95	17.33	22.34	.....
November.....	12.32	13.45	15.16	17.69	21.60	.....
December.....	12.56	13.49	15.51	17.71	23.18	.....
Average for year.....	\$12.48	\$12.85	\$14.43	\$16.37	\$20.35	.....

<sup>1</sup>Drop in January, 1918, was due to Fuel Administrator's closing order for January 18-22.

<sup>2</sup>Drop in November, 1918, was due to closing of factories on November 11, Armistice Day.

NOTE.—The average weekly earning is obtained by dividing the total weekly payroll by the total number of employees on the payroll for the given week.

## AVERAGE WEEKLY EARNINGS IN JUNE IN REPRESENTATIVE NEW YORK STATE FACTORIES.

(Includes all employees in both office and shop.)

(From The Labor Market Bulletin of the New York State Industrial Commission, June, 1919)

Industry.	1914	1919
Stone, Clay and Glass Products.....	\$12.69	\$24.19
Miscellaneous stone and mineral products.....	15.50	25.77
Lime, cement and plaster.....	13.66	25.97
Brick, tile and pottery.....	11.26	21.49
Glass.....	12.10	24.00
Metals, Machinery and Conveyances.....	14.37	25.16
Gold, silver and precious stones.....	14.28	24.91
Brass, copper, aluminum, etc.....	12.67	23.01
Pig iron and rolling mill products.....	15.84	29.98
Structural and architectural iron work.....	14.85	30.46
Sheet metal work and hardware.....	12.48	21.69
Firearms, tools and cutlery.....	13.50	21.19
Cooking, heating and ventilating apparatus.....	13.76	26.32
Machinery (including electrical apparatus).....	14.51	24.19
Automobiles, carriages and aeroplanes.....	16.53	26.17
Cars, locomotives and railway repair shops.....	14.62	27.41
Boat and shipbuilding.....	17.86	30.80
Instruments and appliances.....	13.69	21.96
Wood Manufactures.....	12.03	20.75
Saw mill and planing mill products.....	12.65	21.50
Furniture and cabinet work.....	12.61	20.34
Pianos, organs and other musical instruments.....	11.43	21.53
Miscellaneous wood and allied products.....	10.96	19.72
Furs, Leather and Rubber Goods.....	11.74	22.16
Leather.....	11.03	21.58
Furs and fur goods.....	13.10	30.63
Boots and shoes.....	12.42	22.98
Miscellaneous leather and canvas goods.....	11.11	19.53
Rubber and gutta percha goods.....	10.99	19.96
Pearl, horn, bone, celluloid, hair, etc.....	9.57	18.64
Chemicals, Oils, Paints, Etc.....	13.42	22.44
Drugs and chemicals.....	13.25	20.93
Paints, dyes and colors.....	13.88	21.25
Animal and mineral oil products.....	13.03	23.48
Miscellaneous chemical products.....	14.02	22.51
Paper.....	12.76	25.84
Printing and Paper Goods.....	15.11	23.71
Paper boxes and tubes.....	10.20	17.92
Miscellaneous paper goods.....	11.72	18.63
Printing and book making.....	16.84	25.75
Textiles.....	9.71	17.89
Silk and silk goods.....	9.90	15.70
Wool manufactures.....	10.12	19.20
Cotton goods.....	9.63	19.00
Cotton and woolen hosiery and knit goods.....	9.02	16.44
Other textiles and allied products.....	10.05	19.80
Clothing, Millinery, Laundering, Etc.....	10.88	18.82
Men's clothing.....	12.01	21.86
Men's shirts and furnishings.....	9.31	14.51
Women's clothing.....	12.80	22.61
Women's underwear and furnishings.....	8.94	16.27
Women's headwear.....	11.93	20.39
Miscellaneous sewing.....	8.34	14.70
Laundering, cleaning, dyeing etc.....	8.96	15.85
Food, Liquors and Tobacco.....	11.72	21.25
Flour, feed and other cereal products.....	14.62	24.67
Fruit and vegetable canning and preserving.....	7.28	16.31
Groceries not elsewhere classified.....	13.32	24.78
Slaughtering, meat packing and dairy products.....	14.49	25.97
Bread and other bakery products.....	11.61	21.01
Confectionery and ice cream.....	9.30	15.62
Beverages.....	19.73	28.64
Cigars and other tobacco products.....	9.10	15.99
Water, Light and Power.....	15.96	26.53
Total.....	\$12.70	\$22.51
Per cent increase.....		77.2